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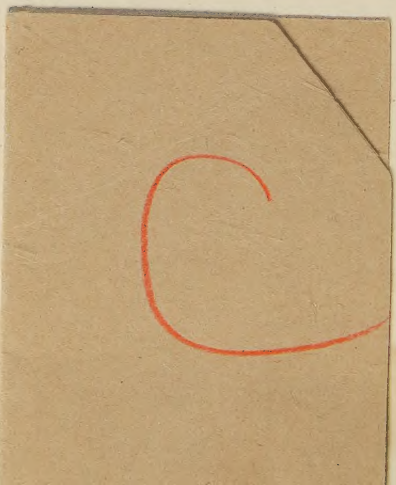

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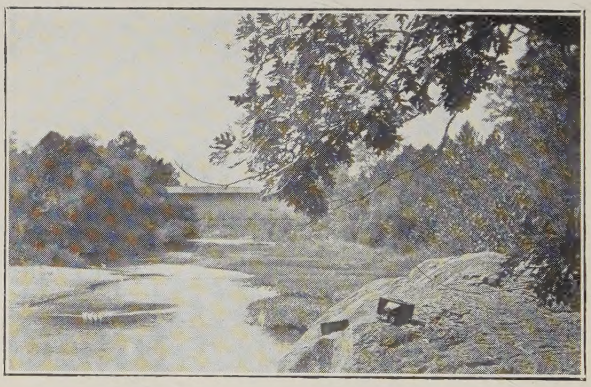

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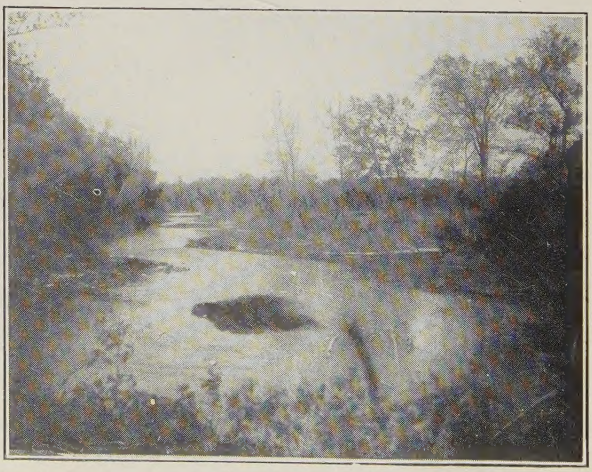

THE STREAMS THAT I HAVE KNOWN BEST AND LOVED MOST.

1. Raccoon Creek near Portland Mills, Ind.
2. Looking down Walnut Creek from the bridge on the Rockville-Danville road.

WOODLAND IDYLS

BY

W. S. BLATCHLEY

AUTHOR OF "GLEANINGS FROM NATURE," "A NATURE WOOING," "BOULDER REVERIES," ETC.

"Our thoughts are the epochs in our lives; all else is but a journal of the winds that blew while we were here." —*Thoreau*

INDIANAPOLIS
THE NATURE PUBLISHING COMPANY
1912

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To my friend, James Whitcomb Riley—himself a poet of nature, a poet of the people, content with little things as themes—this book I dedicate.

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Preface.

"Be ye satisfied with little things" should be the adage or precept set before the eyes of every one who in the woods seeks fancies for his brain, contentment for his soul. The little things of nature, her wayside weeds, her birds and butterflies, her boulders large and pebbles small, her odors sweet, her songs of winds and rippling waters, her grasses green and posies gay, these and many others she offered unto me as themes when with her I sojourned. With a tent as shelter I spent on three occasions a week or two with her in western Indiana. Through her old pastures and along her streams I wandered free and wrote of these her little offerings; wrote also at times of that earth to which my dust belongs and of the sun, her ruler. What I wrote was mine, free from all influence or bias of other human brain, and as such, in the words there penned, I offer it to you.

Thousands of men, now toilers in the cities, were country-bred. For a week or two each summer most of them can get away. Then should they to the country hie and live again the simple life. There can they sleep with a canvas for a canopy, walk far and wide with

open eye and ear alert, breathe the pure airs of heaven, drink the clear waters of the crystal springs, gather wild fruits from nature's bushes, fish for small fry with old cane poles and angleworms, and be boys again. The cost of such an outing is little, the benefits great. Back to the year's labor will they come with faces bronzed, with heart blood filling every tiny vein, with mind envigored and with soul content; back with a new love of the great out-of-doors, with a higher regard for their fellow toilers on the farms. Be not satisfied till ye have tried it once, and when there be ye content with little things.

INDIANAPOLIS, IND., JANUARY 6, 1912.

August Reveries.

"My journal should be the record of my love for Nature. I would write in it only of the things I love, my affection for an aspect of the world."

—*Thoreau.*

Sunday, August 2, '08.—August time again! Time for a cessation from the year's labor; time for the rest which comes or should come to the husbandman; time for days of peace and do-nothingness for the naturalist! Days in which he may loll and listen to the call of the cardinal, the cry of the wood pewee, the cackle of the flicker. For in August, if ever, can he with a clear conscience thus loll and listen, ponder and plan, dream new dreams of worlds yet unconquered which never will be conquered, of deeds yet undone which never will be done, for time, the reaper of all, pauses not and the dreams of the slothful are never realized.

To-day I begin housekeeping by myself. This morn have I pitched my tent for a week's sojourn on "Oak Point" in the old woods pasture; pitched it "high and dry" says the owner of the pasture who helped me set it up. My camp site is about one-eighth of a mile southwest of the boulder nook and three-fourths of a mile south of the old farm house, both of

which I have often mentioned in another work.[1] To the east a third of a mile is my nearest neighbor and from his famous "limestone spring" I shall carry my drinking water. The branch at the base of the cliff or knoll will be my bathing place, and an old oak top my source of wood for cooking. The burrow of a marmot is within twenty feet of my south tent wall and the home of some fox squirrels in the surrounding oaks. The cry of the dog-day locust, full of the languor of the August tide, will lull my daylight hours and the calls of the katydids and tree crickets those of my evenings.

It is not so much the days that I wish to spend on this wooded knoll, as the nights, the gloaming of the evenings, the twilight of the morns. On many occasions days have I spent here; that is, the hours from eight A. M. to six P. M., part or all of them, but what do the woods have to offer by night? What ghosts of the Indians of long ago roam by? What foxes, raccoons, skunks and other night prowling varmints wander here in search of provender? That would I know. Both ghosts and varmints would I welcome.

A tent should be only a sleeping place, a shelter for food, bedding and other possessions in time of storm, not an abiding place. When one "camps" his days should be passed out of

[1] Boulder Reveries.

doors, where air untrammeled can fan his brow, where turf or sward, soft and yielding, will furnish a resting place, where no shelter other than the shade of his forest companions, the trees, will be his.

By eight o'clock my tent is up. Already the turtle doves and "red-heads" have welcomed me. My first real visitor is a bald hornet in search of a breakfast. Without a "by your leave" he flies into the open door of the tent, butts against the top in various places, then is out and away, his quest unsuccessful. Should he come again to-morrow he will doubtless have better luck, for no flies as yet are using the ceiling for a resting place.

A gray-winged grasshopper alights on the sloping roof of the tent and basks contentedly in the sunshine, his hues harmonizing very prettily with his canvas couch. A great black and yellow butterfly, the giant swallowtail,[2] comes wigwagging his way across the point, flying but a few feet above the earth. One of his cousins, a blue swallowtail,[3] has been dodging in and out among the oak branches for an hour or more. A white-breasted nuthatch or "devil-downhead"[4] is my next caller. Like a bashful maiden he at first glances at me askance, then utters his cheery note of welcome as he hops

[2] *Papilio cresphontes* Cram.
[3] *Papilio philenor* L.
[4] *Sitta carolinensis* Latr.

down the side of the oak tree on my right. Two or three times he pauses and gazes at the tent, wondering, perchance, what kind of a queer monster has suddenly appeared within the confines of his daily hunting grounds. Then, with a final "kah-kah," he is up and away.

I walk over to the boulder glade and on the way three species of Locustidae or katydids impress themselves upon my consciousness; first a fork-tailed katydid,[5] arising from the grass along the border of the pathway and shuffling its way in aimless zigzag fashion to the shelter of some shrub; second, the sound of a true or broad-winged katydid,[6] which methinks is working over time sounding his cymbals at near midday when the scorching sun of an August morn is beating down around him; third, a male of the oblique-winged katydid,[7] silent as usual, sitting motionless on the side of a boulder, waiting—for what? For a mate to share his existence? For the coming of nightfall to sound his "tic-tic" love call, or for the unknown and unknowable to fathom his being and remove him into that "life beyond" where all good katydids sojourn?

I trust that the boulder genii will not become jealous because I have pitched my tent on Oak Point, and fail to appear when here I seat myself during the days to come. For often shall

[5] *Scudderia curvicauda* DeG.
[6] *Cyrtophyllus perspicillatus* L.
[7] *Microcentrum laurifolium* L.

I cross over to visit them, to dream with them, to pay homage unto them by night as well as by day. O Genii of Inspiration—wherever thou doth dwell—how many, many mortals do call upon thee to aid them in seeking fame, yet how often, O how often, are the calls unanswered! Many conditions must arise, converge, meet at a common point, cross and merge, before the hour is ripe for thy work to be done.

The prunella,[8] flower of the hour, has greeted me from many places as I trudged along this morn. A lowly herb it is, yet to my eyes ever pleasing; the bluish purple of its upper lip contrasting prettily with the paler purple of the lower and lateral lobes. The cylindrical head, topping the main stem and giving forth its flowers at irregular intervals from May unto October, is often slightly bowed, as if in reverence to that sun, "Lord of the grass and the hill," which ruleth over all. Flower of the shade it is, lowly herb of the brooklet's rim and the scantily grass-clothed slopes. The purplish upper lip reflects the blue of the sky—the paler lower one, the purity of the sod, the elements of earth, of growth. As the season ages the opposite oblong lanceolate leaves, one to two inches in length and borne on daintily fringed petioles, often turn a handsome pinkish red, first on the under side, then above. One now

[8] *Prunella vulgaris* L.

visible on the slope below me has all the leaves of this hue. Attractive not only to my eyes but also to those of the bumble-bee, the low flying butterflies and other nectar loving insects, the delicately hued prunella or heal-all lives and dies in many a secluded glen, on many a shaded slope of this old woods pasture.

I stretch myself out face downward upon the sward by the side of the boulders. I thrust my nose deep among the grass roots. I inhale the odors of the earth, earthy. Not as penetrating are they as in early spring when they arise freely from the frost-rifted sod, yet they are present in sufficient force to be easily gathered by my sense of smell. I stretch out my arms and burrow my fingers deep into the soil. Close to the earth which I love so well thus do I rest, close as I can get without being buried beneath her bosom. One of countless billions of parasites thus do I render homage this hour unto my mother. I tickle her crust. An ant, another of her parasites, tickles meanwhile my skin. Perchance a parasite of third degree tickles the skin of the ant. What matters it? We are all from her. My span of arms outstretched can embrace but an infinitesimal part of her form. Would that I could reach around and for once hold her firmly in a fast embrace. Soon enough will she hold me thus.

Day after day I tramp over her crust, seldom

thinking of her as a globe, a planet, a moving thing, created by, controlled by, the Overlord of all. She occupies space and moves through it just as do I. Although but a parasite upon her surface yet ever doth she hold me prisoner. Freely she lets me walk or sail or move otherwise at will; freely she permits me to tickle or caress her crust, yet the moment I essay to leave her by leaping upward and outward into space, quickly she pulls me back. If by some strategy I manage to get too far away she becomes vexed and jerks me back with such a thud that my bones are broken or my flesh badly bruised. Indeed no man or other animal, no plant or even rock has ever been able to elude her powerful grasp.

Far out into space I often gaze and see other planets like her, which I fain would visit, yet ever does she, and ever will she, say me nay. For of her I am a part; bone, muscle, nerve—all—has she given, has she mothered. For years she suckles me, then growing tired of my insatiate demands she weans me, takes back unto herself the matter which is her own and in time yields it to another more subservient to her will.

Although I know that soon she will tire of me, my love for her each day doth grow. Closer would I get to her yet remain upon her surface. Into my ears would I have her whisper her inmost secrets. Her winds would I have play for

me their sweetest music. I would see her fairest sights, taste her most delicious savors, sense her most fragrant odors.

And so again I stretch myself out and look—not upward into the blue vault of heaven but downward amongst the roots of her grasses and her mosses. Lying thus I hear the gentle dronings and buzzings of her crawling creatures, smell the concentrated odors of her blanket of mold and feel the great heart-throb of the mother in unison with that of mine. Lying thus there also falls upon me from above the smile and blessing of her progenitor and paramour, father to me and all to which she ever has or ever will give birth—master of her and many others of her kind—the sun.

It is eventide. Around me, as I sit in my doorway, the rain drops are falling, falling with a gentle murmur and pelter on leaf of tree, on stem of grass, on the sloping roof of tent. A cricket chirrups from some safe retreat. A chipping sparrow alights near with a green caterpillar in its bill. On the slope before me a pair of flickers are seeking ants and other ground frequenting insects. Soon they fly, their white rump patches showing prettily while on the wing. Away they go to the bole of a maple, alight on its side and dodging from one another around it, engage in a merry game

of hide and seek, uttering at intervals their playful "a-wick, a-wick, a-wick."

The dark green of maple and juniper and papaw contrast vividly with the lighter hue of walnut and sycamore and blue-grass. The earth is greedily soaking up the slowly falling moisture. The gray clouds are doleful, pall upon the spirit, keep suppressed the thoughts which might well up did the beams of the setting sun but fall around me. From somewhere, out of the flotsam of the past as stored in memory's cells, there comes the phrase: "For the turmoil in his soul has ended and peace has come at last." For me it is not the peace of death but the peace of content—content with a day of leisure now gone, content with nature, almost unbroken, for my abiding place.

The rain soon ceases, but the clouds remain. The katydids begin to whet their wing covers in preparation for their nightly serenade. The long trill of a tree-toad comes intermittently from the valley below. The sound of a wagon driven rapidly across a wooden bridge travels sharp and clear from half a mile or more. A screech owl begins his plaintive whining note. A whippoorwill utters two or three calls, then ceases, for his love days for this year are over, and not again will he make the welkin ring till the wee hours of the morn. With such sounds

do the denizens of the old pasture lull me into peaceful rest, into slumber sweet.

Monday, August 3.—Up at 4:20. The eastern sky resplendent with the glow of the coming sun; the morning star, a diamond shining with slowly fading brilliancy before the advancing splendor of the orb of day; the distant pastoral sounds of crowing cocks, barking dogs, lowing cattle and ba-äing sheep; the clear ringing call of a cardinal; the scolding notes of jay and woodpecker—these my morning greetings.

A thin mist rises from the valley. A cool moist atmosphere with heavy dewfall has followed the shower of yester-eve. I light my breakfast fire and the smoke, with pleasing aroma, rises heavenward, an incense to greet the coming of the first rays of the sun. The hot air rises with such force that it causes the o'er-hanging boughs of oak to sway up and down as though a stiff breeze were blowing.

In boiling my potatoes I, by mistake, got a pear in the kettle and did not find it out until I came to test them with the fork to see if they were done. I ate the pear with a little sugar added and found it was delicious. Already this morning then I have discovered a new way of serving pears, viz., boiled with the skins on.

Heretofore I have both supposed and re-

corded[9] it to be a fact that the broad-winged katydid is most commonly found about the domiciles of man; i. e., in his orchards and the shrubbery and shade trees of his yards, "being seldom if ever heard in extensive wooded tracts." In this I am mistaken. In a trip along White River a fortnight ago they were found to be so numerous in the dense woods along the stream as to be almost deafening when in full chorus near our camps. Last night they serenaded me by scores from the oaks and maples here in the open woodland, a third of a mile and more from any house. Their cymbals lulled me into early slumber, and were the one sound heard when about midnight I awakened. Between two and three o'clock, however, they were almost silent, a single individual clanging forth at intervals of a minute or two, then subsiding, then breaking forth again.

By six o'clock I am through breakfast, through washing dishes. Donning an old pair of rubber boots and taking my gun I start down the valley of the brook that flows by the base of the knoll on which my tent is pitched, down through a lowland thicket, one of the wildest bits of nature's woodland in the country hereabouts. Sycamores, willows, cottonwoods, soft maples, red haws, poison ivy, tall actinomeris

[9] Orthoptera of Indiana, 1903, p. 360.

and various other forms of vegetation thrive together in a lowland field never cultivated, rarely pastured. In the soft mud along the margins of the pools the tracks of muskrats and raccoons abound, while along the banks the monkey flowers, prunella, great bell-flower, darkey heads and ferns of two kinds unite to form great masses of green foliage and bright blossoms. Bumble-bees drone, mosquitoes hum, killdees utter their regrets and green herons their coarse scolding cackles as I force my way through the tangled maze. In one place a water moccasin squirms his way across the dark water of a pool and is lost to view in a pile of drift-wood. In another a great horned owl flaps noiselessly like a big bat as he retreats before my advancing form. Soon tiring of the dreary outlook and lack of game, I find my way out into the higher, more open woodland — out where the sun's rays occasionally fall, even if they are fierce and hot this August morn.

Climbing the wooded slope I suddenly hear a scolding chuckle, at first seemingly some distance away, then closer, and again right at hand though I have not moved three paces. Then a glimpse of a hairy form on the side of a poplar, a quick aiming of the gun, a detonation, and a fellow mammal has given up its life that the blood in my veins may be renewed by the stored protoplasm of its muscle cells.

Other than by seeing them on the ground or moving up the boles or through the tops of trees, there are three ways of detecting the presence of a fox squirrel on these August days. These are, by hearing their scolding chatter; by seeing their tails wafted to and fro by the breeze as they lie squat and otherwise hidden on some horizontal limb; by hearing or seeing small pieces of bark or other substance falling from some tree. With no hickory or oak mast to store, their lot is apt to be a hard one during the coming winter.

At half past eight I am again in the shade of oak and maple at my boulders' side with the breeze cooling my perspiring brow, with the unclouded dome, blue with the infinity of space above me, with the red-eyed vireo, the indigo bunting and the harvest fly alternating in making music for my ear. The black ants occasionally tickle my cells of touch and the hawkweed blossoms by my side, its ray flowers outdazzling the sunlight with their limpid yellow.

The lamps of the sky which light by night a myriad of solar systems are now seemingly extinguished, their brilliancy merged into that of our King of All, whose beams do fill all visible space with the glory of their radiance. Were I, on such a day as this, on a mountain top a thousand times higher than any on earth, far as the eye could reach his rays would glorify.

What common names many of our more abundant weeds do have prefixed to them. Iron-, rag-, dog-, hog-, hawk-, horse-, May-, pig-, are but examples. Of these the iron- and May-weeds are most handsome. The others mentioned, except one, are best known for their abundance in and about cultivated grounds. The exception is the hawkweed[10] above noted as blooming by my side. It flourishes best on shaded slopes of old pastures where the grass is thin. A dozen or more nominal and closely allied kinds there are in this country, each with a rosette of spoon-shaped hairy leaves close to the ground. From this springs the slender stem a foot or two high, usually with distant alternate leaves upon whose shape and degree of hairiness the species are principally based. At the top of the stem is a loose panicle or corymb of flowers in compound heads with yellow rays. Members of the great Compositae family are they and common in their chosen habitat. Seldom noted except by the botanist they add their mite of color to many a pasture during the August and September days. Just before me I see a score or more glinting in the sunshine from above the scattered stems of wire-grass in the midst of which they delight to flourish.

This wire-grass,[11] growing in abundance along

[10] *Hieracium scabrum* Michx. [11] *Juncus tenuis* Willd.

the pathways and on the slopes of old pastures, is full of elasticity. It is not a true grass but a rush and, after being trodden upon by man or beast, its stems when released, spring erect, apparently unharmed, their loose panicles of flowers or seeds waving as gracefully in the air as though they had not just stooped to kiss old mother earth. It is this property of elasticity, of upspringing after adversity, which enables this plant to thrive along the pathways. The stems of the blue-grass remain down when trodden upon but the wire-grass, like truth, once "crushed to earth, doth rise again." Its spirit is not broken, its power of growth scarcely retarded, by being often beneath the heel of man. Being therefore successful where other plants would perish, it is one of the worthy and inspiring members of earth's lowly forms.

Yesterday a crippled bumble-bee was noted crawling rapidly over the ground in the old farm yard. Several hens from a distance saw it moving and immediately ran up thinking a good mouthful of food was at hand. However, not one of them would even deign to peck at the bee, but turning their heads sideways gazed down at it, a knowing look in their eyes and a chuckle in their throats. Was it inherited knowledge or had the mother hen taught them in some way when they were young that live

bumble-bees have a hot reception for whatever tackles them—a hen's gullet being no exception for the receipt of such reception.

O what atoms we are as we wander on and on over the surface of this great sphere, thinking we control it, when in truth we only live and sin and agonize and die upon its outer rim! No one of us, did we live a thousand years and travel every day, could see in detail a millionth part of its surface, or become acquainted with more than an infinitesimal part of the workings of nature's forces when in action. We think we *live*. We only *exist*. A little matter, dominated and led here and there for a little time by a little energy, we are but as a drop to the sea, but as a cubic inch in that infinite space which stretches on and on beyond our ken.

And two there were whose childhood days were spent together, free from care and with ambition's banner pointing to the skies, each with a great soul longing which never was or never will be satisfied. And one did wander far in search of fame, did tread the Afric sands beneath his feet—the Alaskan ice at times within his view. The world was his and opened here and there her secrets to his gaze. The other, pent up between four walls, did watch for years, long years, the sun rise and set and make his arc across the same area. Ah fate, which guideth all, which leadeth all — how

strange thy doings—how unforeseen thy reckonings—with these our souls and bodies!

The yellow-billed cuckoos or rain crows hereabouts evidently raise two or more broods each season. This morn I flushed one from her nest on the outer rim of a thicket of prickly-ash, which grows on a little terrace by the side of the brook. The nest, a frail looking affair of small sticks and twigs placed loosely together, contained four medium sized light blue eggs. The mother flitted noiselessly a few feet into the depths of the thicket, then paused and viewed with anxious eye my movements. After looking at her home and satisfying my curiosity I passed on, and soon heard her low cackle of joy as, returning, she found her treasures unharmed.

It is 5:30 P. M. and the shadows of the oak trees in front of my tent fall far to the eastward. A hot day it has been, yet tempered by the breath of the south wind which in gentle zephyrs has come and gone for many hours. A lazy afternoon have I passed lying on the grass and reading some of the so-called short-story masterpieces, as Brown's "Rab and his Friends"; Hawthorne's "Ethan Brand"; Poe's "Pit and the Pendulum"; Stevenson's "Will o' the Mill," etc. For some of them it was my second reading. Hawthorne's and Poe's tales are not such as to beget pleasant dreams, but

are full of the gruesome imaginings of the pessimists of three score years and more ago. Well told they are, yet teaching little. The "unpardonable sin" of Ethan Brand is committed this day and age by hundreds of men in the great cities—"the sin of an intellect that triumphs over the sense of brotherhood with man and reverence for God and sacrifices everything to its own mighty claims." And yet at the close of their careers many of these city pirates would also doubtless exclaim: "Freely were it to do again would I incur the guilt. Unshrinkingly I accept the retribution." How wonderful this art of letters that brings to me here in the wilderness the best thoughts of great authors, for half a century dead and gone!

While going after my evening pail of water I heard a rattling in the bottom of the bucket, and looking down found that a large click beetle had in some way fallen in on his back and was endeavoring to turn over in his usual fashion. I gave him a toss to freedom as did I also, later on, the grasshopper that leaped into the water which I was carrying back.

The first katydid at 7:17, while the glow of the sunset was yet prominent in the west. Midges, mosquitoes, gnats and chiggers—blot them from existence and how much the pleasure of an outing in August time would be enhanced!

Tuesday, August 4.—At 5:15 A. M. I have just finished washing my breakfast dishes. The smoke from the remnants of my fire is still curling lazily upward through the oaken branches and uniting with the mists from the stream give the latter a hue more blue than gray. This mixture of mist and smoke hangs in cloud-like form above the pools of water and follows the windings of the stream both up and down the valley. As I was sipping my last quaff of hot water the first beams of the sun were visible above the ridge to the east. It has not yet appeared above the treetops on the ridge but its rays have covered the slopes across the valley to the westward with a flood of golden glory.

No painter can give to sunlight or moonlight that softness, that quality of ethereal loveliness which it really possesses. Last night the moon, half full, shed its halo over my tent and the trees cast their shadows as in mid-afternoon. The light of the moon itself, as seen from this knoll, seems many fold brighter than that which falls from it upon the earth. A strange, cold, lifeless object, that moon, forever revolving about our mother yet held ever just so far from her by that greatest of physical forces, gravitation. A great reflector placed up there in the heavens to make our nights of darkness more easily borne. A fortnight ago I looked

upon its fullness. It was then the gem of the heavens, shining resplendent in its borrowed light, just as many a human shines with the glory of some relative whose deeds have brought honor and fame unto his name.

Even yet the moon of yester-eve is visible just above the horizon in the west. Faint yet distinctly evident it rests, reflecting the rays of the morning sun from its upper half. Far, far beyond it are stars and other moons by thousands, out, far out in that space so vast that eye of human cannot pierce, that mind of human cannot grasp. O space illimitable! O time unceasing! O matter indestructible! O forces of nature transmutable! what deeds have been accomplished, what changes have been wrought, what worlds have been evolved, what chaos has been changed into cosmos, by the combinations of thy four equations during the eternity of the past!

The sunshine strikes my tent between six and nine A. M. and one and three P. M. Under the oak in my front yard, which forms my canopy most of the time I am at home, it seldom falls. My days while here are *mine*. I do not even have to hoe beans. I can listen to the music of the south winds or to the throb of the heart of the universe. I can choose the dazzling rays on the unsheltered sward in which to bask or in the shade of oak and maple can I pass

hours in revery. A turtle dove this minute is co-o-ing unto me in soft low drawling tone her lullaby. A tree cricket adds its note unto the melody. Both are optimists of high degree. The pessimist of these woods is the wood pewee. He seems to be silent here these August days, at least unto me his call has not yet come. June and July are the months in which he most delights to complain. Then every glen and alcove is peopled by a pair, and pessimism hereabouts is at a premium. Would that my soul possessed the optimism of the red-eyed vireo and not the pessimism of the wood pewee.

Just now I saw an old straw hat moving above the top of the underbrush on the slope of the ridge back of the tent. A man's head is doubtless beneath it, as the two are usually found in company. Hastening to hook together the tent flaps I "vamose the ranch," for I am not at home to visitors during the forenoons.

With a tin basin as a receptacle I move up the valley to three or four small patches of blackberries. Owing to the long drought, the fruit is badly dried, but I get about a quart to stew for dinner. A berry picker by experience, I would almost enter a wager to pick ten gallons on time with any man. Between the ages of nine and fifteen I earned most of the money I had to spend by picking wild berries during their season; first raspberries, then blackber-

ries as the weeks went by. One summer there were no berries and I had no spending money. I remember tramping the woods and thickets trying to find a cardinal's nest that I might earn a dollar by capturing the young and then selling them for cage birds. It was a vain quest. Neither that summer nor any other did I ever see a young "red-bird" in its nest. What a "heart-eating" gloomy summer that was, without a cent to spend and no chance to make one. How I longed for the "happiness of riches," a happiness that never was, that never will be. To-day I pick berries to stew for my own dinner. In those summers of long ago I picked them to stew for other men's dinners. The sooner one quits picking berries for other men the more the world will have to offer him.

Between the blackberry patches and the cuckoo's nest, which I again visited, I noted a large reddish-brown robber-fly bearing away on the wing a bumble-bee thicker bodied but shorter than its captor. It would have been well worth while to have seen the tussle when the two first met in the great struggle. It must have been a case of "dog eat dog" for a little time, and the best cur won. In the past I have seen the robber-flies with many kinds of winged captives, but never before with a bumble-bee.

"Da-da," "papa," "dad," "pop," "old man," "boss," "guvner," "father"—that is the gamut or scale of appellations which a boy in this generation usually applies unto his sire. In the order named they are used from the time the child can first stretch out his little arms, the love light beaming from his eyes, and lisp the word "da-da," until the age of manhood and of reason has been reached—the age when, with a hearty and true hand grasp and a greater and more tender love light glistening from the windows of the soul, the man can with true reverence utter the word "father" and feel at heart something of what it really means. He who has had experience can almost guess at the age of a boy or youth and the reverence he has for his father by the name which he applies in speaking of or to him. When youth is behind and wisdom to some extent ours we never call our sire "the old man," but with a heart full of filial love, full of feeling for age, full of respect for what he has been unto us, we speak of him as "father" with somewhat of that reverence with which we speak of that father of nature, the Overlord of All.

A handsome blue-black butterfly, the red-spotted purple,[12] has made my front yard his loafing place for the afternoon. He rests alternately for a few minutes on the tent, on a

[12] *Limenitis ursula* Fab.

leaf of the white oak, or on some object on the ground. On the side of the tent, while tightening up the guy ropes, I also found a large walking stick,[13] with barred femora and greenish tibiae and tarsi. Such insects as these I am glad to welcome as visitors. They interest me and at the same time do not detract from my reveries.

At half past two a heavy shower came on, but lasted only a few minutes. When the drops first fell a score or more of them struck my stove (two old fenders from a riding cultivator) which was still hot and resting on the embers of my noontide fire. As each drop struck it was changed with a hiss and a sputter into steam. As the iron cooled the hisses gradually grew softer and more prolonged, then ceased altogether, the rain having extinguished the embers and shut off the supply of heat.

Just after the shower my neighbor, J. C., tall, gaunt and lame, came over to see "how I was getting on." He is the one who "owns" the spring where I get water. He told me that last week his little grandson was bitten on the hand by a copperhead snake and described the remedies used. First a chicken was killed and opened up and the boy's hand thrust in among the entrails, which soon became black from the poison they absorbed; second, a decoction of

[13] *Diapheromera femorata* Say.

"granger" tobacco ("long green" I suppose) was made and the hand soaked in it, the tobacco leaves then being bound thickly over the arm; third, whiskey was administered freely. The arm and side of the body became considerably swollen, but in a few days the boy was playing about the yard as usual. J. C. says he saw the snake, which was killed soon after inflicting the bite, and that it was "a copperhead sure as shooting." This once common poisonous snake has in recent years become very scarce in central Indiana—the more common but harmless spreading viper being often mistaken for it.

After talking for an hour I took the bucket and we went over to the spring for my evening supply of water. It emerges from the base of a ledge of limestone and flows a steady stream year in and year out. A thermometer placed in it showed the temperature to be just 50° F., the air being 84° in the shade. It is a very pure limpid water and the old house in which J. C. lives was built seventy years and more ago in the out-of-the-way place where it stands, solely because this spring purled forth from the hillside. J. C. claims that one O. H. told him that an old Indian trail once passed by the spring and that when he (O. H.) was a boy his mother and he met several Indians near there,

one of whom said to him: "No afraid; me no hurt pappoose."

I read this afternoon James Lane Allen's "King Solomon of Kentucky." It is a good short story and, in my opinion, much more true to life than either of the ones by Poe and Hawthorne read on yesterday.

The first katydid this evening at 7:19.

Wednesday, August 5.—At 3:50 this morn the patter of rain drops on the roof and the reverberation of thunder in the heavens awakened me. Arising and pulling down the flaps of the tent, I awaited the downpour which never came. At 4:30 I arose, breakfasted and soon after started for Indianapolis. After a weary day, three hours of which were spent in smoke begrimed steam cars with cinders of half burned coal flying in at the windows, at 6 P. M. I again reached the old farm house. Five hours were passed in the city where the sun shone down relentlessly upon asphalt and brick pavements shut in by tall brick and stone buildings with a hurrying crowd on every side, I among the rest, until I reached my office. There I delved among my accumulated mail, read page proof on my annual report and answered the questions of numerous callers until my train was ready to take me back—back to my tent beneath the stars where the only sound is a sere-

nade by my band of katydids. Here is the blessed peaceful quiet which nature offers on a midsummer night. Here is no dust, no ill smelling odors, no noise of commerce or industry, but only the quiet of the growth of grass, of trees, of crops in the near-by fields.

"In cities high the careful crowds
Of woe-worn mortals darkling go,
But in these sunny solitudes
My quiet roses blow."

Nature does a million times as much work here on earth as does man, does it without bragging, does it without ostentation, does it noiselessly and without tiring, does it without complaining of a ten-hour day or an insufficient wage. In the silent watches of the night and in the calm peaceful hours of the summer day the work goes on—ceaselessly, ever on. Cells are being every moment built in the stems and leaves and fruit of trees and herbs, and energy stored therein. Wind and rain, with a little more noise, are tearing down rock and banks and the slopes of hills and forming therefrom new soil. All food for the millions of animal parasites, ourselves included, is thus being produced without a trace of that roar and rumble which ever accompanies the deeds of man. Work silently and constantly. Brag not. Pause not except for sleep. Do something every

day. These are the precepts which nature strives to teach us by silent example.

By moonlight I went to the spring and came back rejoicing in the presence of its mellow beams. It is now 9:15 and I am alone with the God of Nature. Alone, yet with resplendent company, for up there, smiling down at me with twinkling eye and merry mien are those worlds and suns, the stars, so near and yet so far. Between me and them naught but the emptiness of space, a void never to be measured, never to be filled, never to be passed except by the thought of man. Anon a fragment from a distant world comes shooting down, and striking the atmosphere of this is kindled for a brief second into a vivid living flame then dies out forever into a darkness as of death. The moon sinks slowly behind the trees and only the light of those other worlds falls upon me. On them perhaps are thinking beings such as I, looking out this instant into space as I, and seeing this world glowing in the light of its sun, long for a wisdom to know what and why, where and how about it—questions which they and every other thing possessing thought will forever ask in vain.

Thursday, August 6.—Up at 4:20. The morning hazy, the earth moist with a heavy dew. A crimson glow in the east which, as seen

above the ridges and the tree tops, is most charming. Even the morning star has caught a tinge of it and is fiery red. I turn my back a few moments to light my breakfast fire and when I look again only the gray of a cloudy morn is there. The enthusiasm of youth is gone. The despair of age is in its stead.

The fire blazes quickly and soon yields a genial warmth which, in the chill morning air, is most pleasing. What necromancy is this which, from a few dry half decayed oaken twigs, brings forth sparkling flames, genial heat, glowing coals? Where and what were they a few seconds ago? O chemistry of nature, what combinations canst thou bring about; what wonders canst thou produce; what blessings canst thou bestow, when thy elements do meet and mingle, merge and unite under the conditions which thou desirest! Given carbon, hydrogen and oxygen in the wood, more oxygen in the air, a certain degree of temperature and there fares forth that heat imprisoned in the cells of oaken twigs and branches since the sun's rays gave it unto them a score of decades ago. Had I not given the condition of needed temperature the heat now sent forth in a few minutes would, through the agency of decay, in time have been freed; but a dozen years or more would have been necessary for the change. Instead of a remnant of ashes there would be left a little pile of

earth mold which could the quicker be used in the fashioning of new objects for the chemistry of nature to work upon.

At half past five I start forth on my morning's mission of destruction. This thing of hunting squirrels with a shotgun is a boy's sport. I like it because it is such. It gives one a good excuse for plodding up and down the slopes, for living hours in the open. It puts new blood into half filled cells, and once in a while a new thought into a half befogged brain. On such days as this I would be a boy, not a man. I would have hope reign supreme in my being and care far away on a journey.

The sun is hidden behind a foggy haze of clouds which everywhere curtains from sight the dome of blue. It is a pleasing change from the intense heat and glowing sunshine of the past week. Pleasing say I, though I love the sun, but even he overdoes things at times.

On such a morn one listens and expects soft wooing sounds, such as the crooning of doves, the half hushed trill of ground crickets, the subdued chattering of sparrows. The grass is lush with dew and in my rubber boots I tread as softly and noiselessly the pasture pathways as did the Indians of old when along these slopes they passed in moccasined feet. Noble game they hunted—elk, deer, wild turkey, pheasant. The greed of my progenitors has

left for me only the fox squirrel and few of them do I find.

The odors arising from the valley on these cool moist August morns are almost as sweet as those given forth from the earth mold when before the breath of the south wind its shroud of snow melts in March or early April. Up they come, that of peppermint, of everlasting, of pennyroyal, of fully ripened blue-grass stems, of half decayed oaken bark, of a double score of other things, all meeting, mingling and forming a potpourri of fragrance which my nostrils feast upon. Of the five senses the naturalist while in the open gains through sight most pleasure; then through hearing, smelling, tasting and touching in the order named. Thanks to the fates which rule over my destiny my sense of smell is yet as good as ever, however dimmed my eye or dulled my sense of hearing.

In passing by the cuckoo's nest I note that the young ones have begun to hatch. The mother glowers at me more fiercely as I approach and when she flys, like a jack in a box there pops up a big head attached by a slender neck to a bigger body. A broad mouth opens wide and gives forth a low chuckle of expectation, while the head wags to and fro once or twice, then feebly falls. Blind, weak, yet damp from the moisture of the mother egg, how help-

less this little creature on the morn of its natal day. The mother and the father! One never realizes how much the offspring is dependent upon them, even after they have brought it into being, until one sees the feebleness, the utter helplessness of a nestling such as this or of a blind and naked mouse in the first few hours of its earthly sojourn.

At nine o'clock my allotted task of hunting has been completed and again I rest beside the boulders. From four miles and more away I hear the whistle of a locomotive and rejoice that this day it will be no nearer. The hours are before me, free, untouched, unplanned—a margin broad as the day that remaineth to be my very own. The clouds have tempered the atmosphere to my liking. On such a day, in such a place, one grows old slowly.

The prostrate spurges which one often sees along or in the pathways cling closely to the bosom of the mother earth. During their entire lives their stems and leaves and branches hug close her form, cover her naked places. Several of them, as the spotted spurge[14] and the hairy spreading spurge,[15] have numerous slender branches which radiate out from a common base, thus forming a pretty, circular leafy mat. Others which grow half erect have one principal branch with many side shoots. The

[14] *Euphorbia maculata* L. [15] *Euphorbia humistrata* Engl.

leaves of the spotted spurge are blotched near the center with a spot of brownish-red, while those of most of the other species in age become a handsome reddish purple. The flowers of all are small and inconspicuous but the form and foliage are most pleasing. Lowly parasites are they, yet well worthy the notice of him who steps on or over them as he wends his way along the pathways of these open woods.

What longings which cannot be put into words come at times into the soul of the dreamer. Up there or far beyond is some height, its altitude unmeasurable, or some island, its area and boundaries unknown and unknowable. To that height he would climb, o'er that island he would rule. Both are things uncanny which he cannot grasp. They are the nuclei of his day dreams, weird unfashioned will-o'-the-wisps or phantoms which come often to him who is not content with his daily task. Were they real and his a soul of perseverance and self reliance he would climb to the height in an airship of his own invention or sail to and conquer the island in a sloop the cut of whose jib and foresail was of a pattern unknown to man. But to the dreamer they will ever exist, unreal, unconquered and unknown. Yet for some they may serve as inspirations or lodestars, leading on to real achievements, which will bring renown unthought of, undreamed of,

greater than even the author of their doing can foresee.

I look me down and see a chipmunk looking up. Seated 30 feet below me on the root of a maple he gazes at me unabashed, unperturbed. What consciousness is his? Not that of discontent, for he measures not his months by deeds undone, by longings unsatisfied. The spirit of content beams forth from his eyes. His stomach is full. His passions are dormant. His eyes see not and his ears hear not an enemy from which he must hide. Content is he to sit and gaze, to bask on a tree root, to let time go on, unknown, unmeasured, a part of an eternity which ever was and ever will be.

After dinner I spend an hour beneath the oak in my front yard chewing the cud of memory, then read for the first time the "Rubaiyat of Omar Khayyam"—old Omar the Persian poet of eight centuries and more agone. Therein he sets forth in peculiar quatrain, of which the first, second and fourth lines rhyme, the same doctrines that so many believe and practice to-day—namely, that there is no hereafter, no to-morrow, therefore "eat, drink and be merry for to-morrow you may die."

"Ah, my beloved, fill the cup that clears
To-day of past regrets and future fears:
To-morrow! Why, to-morrow I may be
Myself with yesterday's sev'n thousand years."

He also believed that the sun is master; that nature is one and indivisible; that time is fleeting and the hours should be spent in revelry or in doing something worthy, not in dreaming of and preparing for a future that will never come to be.

"Come, fill the cup, and in the fire of spring
Your winter garment of repentance fling:
The bird of time has but a little way
To flutter—and the bird is on the wing."

This eve I sit beneath the stars and listen for an hour to my band of serenaders, the katydids—listen and ponder o'er the doctrine of the indestructibility of matter as set forth by old Omar in the single line:

"With earth's first clay they did the last man knead."

The moon in time doth rise and shed the glamour of its beams on all living things about, myself included. Again do I pick up the little volume and there see:

"Yon rising moon that looks for us again—
How oft hereafter will she wax and wane;
How oft hereafter rising look for us
Through this same garden—and for *one* in vain!"

Leaving the moon and the katydids to solve the question which old Omar asks, I seek the shelter of my tent, and on my canvas cot lie down to pleasant dreams.

Friday, August 7.—About 4:20 A. M. seems to be the time that I each morn arise, though I do not especially will it so. When camping one unconsciously falls into a habit of early rising. The call of the dove was one of the first sounds that greeted the new born day. "Coo-o-coo-coo-coo"—soft and low, then a pause of some ten seconds and a repetition, the first note slightly the longest. Once in a while the first or prolonged note is uttered by itself, the bird suddenly stopping as if choked. It is a pleasing but plaintive sound on this languid August morn.

In strong contrast was the "cher-whitty—cher-whitty—cher-whitty, che-whé—che-whé—che-whé which soon after came from a hawthorne just back of the tent. Peering into its midst I saw a skeedoodlum of a wren, his feathers half gone from moulting, his body not bigger than thirty seconds, yet with head in air he was rolling forth sound enough for a cardinal or other bird ten times his size. "Cher-whitty—cher-whitty"—he kept it up while I gazed at him, he meanwhile constantly bobbing around, never still—now tail up, next tail down, every instant cherwhitting in tones which made the welkin ring. A cheery little cuss is he, who would sing were his tail on fire. A brownish-gray mite of ornithology, an optimist at all times, whose habits of sprightliness

and song of glee should be copied by that pessimist the wood pewee and his larger cousin the king bird.

Some thirty yards back of the tent there is a little rise in the surface and some of the flat foundation stones which mark the former site of a squatter's cabin. There doubtless once was life and death, was love and ambition, was marriage and birth, was joy and despair, was hope and sorrow. They came and went in the lives of those pioneers as they come and go wherever life is or is to be. Could we have happiness or contentment ever, we would know not their savor. The despair of hope long deferred must come between or at intervals. We must realize the pangs of defeat to appreciate at its true value the joy of victory.

On the ridge, just to the east of where the cabin stood, there are said to be the unmarked graves of two or three of the pioneers. Whether they died natural deaths or were killed by the Indians no one knows. I have neither seen nor heard their spooks if they have walked since here I have dwelt. Many a pioneer, many an Indian, many a progenitor of the Indians, are doubtless buried beneath the earth's mold of the ridges hereabouts.

"And we that now make merry in the room
They left, and summer dresses in new bloom,
Ourselves must we beneath the couch of earth
Descend—ourselves to make a couch—for whom?

On visiting the cuckoo's nest this morn I find that all four eggs have hatched, the youngsters completely filling the nest. All are much larger than was the single one I saw on yesterday, and their feathers, now dry, are a dark bluish-gray in hue, more like those of a green heron than a drab like those of the parent cuckoos. One of the old ones was still brooding them on the nest though the day is warm enough. But one of the parents has been seen at a time, and that the one on the nest. Some hustling will be necessary during the next few weeks to satisfy the four hungry stomachs of the growing young. All are yet blind and when I approached three of them stuck up their heads and opened their mouths in disappointed expectancy. The other one was probably asleep.

The naturalist who travels far and wide by himself through woodland dells, over the hills and adown the vales, acquires a habit of attributing to things inanimate, as well as to those possessed of life, a sense of feeling and of reasoning. He thinks of them as knowing his presence, as greeting his footsteps, as catering to his desires and furnishing of their own free will subjects for his study and his thoughts. Each form he meets becomes to him, for the time being, a companion, full of good cheer, of hearty welcome. To them he can reveal his inmost soul. From them he can expect and often

seems to receive a sympathy, which is higher and more intense than that received from humans. One instinct or attribute in particular, which to my mind often seems to exist in dead objects, such as a stump, a stone or the body of some animal, is that therein is a great desire to become once again a part of a living thing, to feel once again the joy of the sap or life blood pulsating and tingling through vein and tissue. It is for that reason that I like to start bonfires and burn old logs and brush; that at times I like to crush stones and scatter their dust far and wide over the surface of the sward; that I like to see scavenger beetles or buzzards feeding upon the dead bodies of birds and snakes.

When I put a lump of coal into a furnace I often fancy that I am unlocking the prison cells of an energy which was there stored in the old Carboniferous days, when man was unthought of, when reason was unknown. Out of its mass leaps the heat, warming to the white glow of the flame the tiny remnants of the old cell walls, giving to my body a modicum of its radiant energy, then bounding again free and untrammeled into that space through which it travelled, when millions of years ago it came fresh from its fountain head, the sun. I am the liberator who sets it free. With what joy it surges forth into the light, the smile, of its

father—the ruler of all. Everywhere they dwell, these imaginary spirits which inhabit the things I meet on my daily tramps. They are the true elfins or wood sprites which lend to the old pasture much of its charm, much of its power to lure me onward day by day.

The hoary vervain,[16] many spiked, has opened its blue flowers to heaven. Upward they gaze into another blue, an ethereal blue, which seemingly is, yet is not. The blue of the vervain flowers is, to our sense of sight, really present. 'Tis a pale purplish, dainty blue, not the deep indigo blue of those evanescent flowers of the common spider-wort. Blue, true blue, is one of my favorite colors, that and such a shade of red as the cardinal flower doth vaunt. Gray also, except in clouds, doth sooth my sense of sight; except in clouds say I, no leaden sky for me. But that ethereal blue which reaches up and up, far as the human soul can send its ray of thought, 'tis blue divine, 'tis deep, unfathomable. So are many pools—so is the hereafter.

The densely flowered spikes of the vervain before me, some of them two feet in length, have but an inch or two in blossom at a time. The seed pods or fruit of the past are below, the unopened buds of the future above. The flowers are now close to the top, the fruiting portion

[16] *Verbena stricta* Vent.

long, the budding part short, for its season is near the close. Life, present work, is now in the flowering part; duty performed, finished work, in the seed part; promises or hopes for the future in the buds. Only the present blooming part, that which is active, is beautiful. That is the part attractive to the human eye in the plant as well as in the human. What are you doing? Be up and at work. Live not upon a past reputation. Chance not your happiness upon the budding unlived future, which may be seared by a night's hoar frost into something dull and dead.

The "Symbols of Nature's Hues," is a theme which to a painter's brush or a poet's pen should yield inspiration noble. Green stands for youth, for cells rich in protoplasm and chlorophyll, strong in the power of storing energy, potent in the factor of growth. For that reason green is ever welcome for it is the hue of promise, of hope, of growth and work, of life yet to be, of crops of the future. It is the garb of springtime, the garb in which mother earth delights to clothe herself after her winter's sleep.

Yellow and blue, orange and red, represent maturity, the harvest time. Growth has ceased. Energy is stored. Cells are full of starch and protein, of food and power. These hues should also stand for peace and content, for happiness

if it is ever to be—for those years which are the crowning glory of a life well spent.

Brown and gray are sombre colors, hues of death and decay. Too often they follow the green of youth with none of the brighter tints intervening. The crop is harvested before full maturity. The seed shrivels and shrinks. Life is a failure, a succession of years of longing for that which never comes, which never can be.

Black is for mourning, for despair, for grief over brown and gray, for the shroud to cover their faces, hide their faults. It is a hue seldom seen in nature for her days and years are full of promise, too precious to be wasted in long spent grief. Green and the hues of perfect maturity are those in which she most delights. Browns and grays and blacks are for her waste places, her deserts and mountain tops, her late autumns and winters; greens for her oases, valleys and prairies.

White is for innocence, for purity, for the first hours of the new born plant and animal, for the mantle which shall hide the black despair of deepest winter, but which shall be uplifted to disclose the first glimpse of the garb of green which follows the great awakening.

After my noon meal I seek the shelter of the oak tree which grows on the brink of the cliff in front of my tent. No sooner am I seated

than a hoarse "cuck—cuck" I hear somewhere below. Peering over the edge I see on a log above the water, surrounded by a tangle of weeds, a straight slender form with head and neck stretched out, motionless, and gazing upward. From it comes the sound and I know it to be a green heron whose silent quest for frog or minnow in the pool below I have interrupted. He was seeking something to eat. He is afraid if he remains I will try to eat him. So with a shriller "ké-uck, ké-uck, ké-uck," he flaps his wings for swift flight to some sheltered cove where he will be in less danger of being eaten.

The mosquitoes have followed me up and are trying to eat me. Eat, to eat, to be eaten. The world of lower animals lives with the ideas expressed by those three terms always in mind. Nothing is more potent, nothing more important in their vocabularies. One caw of a crow denotes that he is hungry—wants to eat. Another kind of a caw, that something has been found that is fit to eat. Three caws, shrieked out in quick succession, mean "look out, danger or you will be eaten." So each living thing which can make a sound has its calls, its cries, its signals denoting some one of these three forms of the verb "to eat."

After a doze on the grass I read this afternoon the Allegory of Jamí entitled "Salaman

and Absal." A pleasing tale it is with a most excellent ending—viz., "The truth God only knows." And only He ever will know for, as old Omar says: "I came like water and like wind I go." Pantheism unadorned.

Saturday, August 8.—The morning star forever shines but few are the eyes that see it. The great majority of people do not arise soon enough. The greater number of those that do, cast not their eyes skyward in search of stars but earthward in search of things more gross. Most brilliant is that star when at 4:25 this morn it glows down upon me with its borrowed light. The great bowl is beclouded only here and there about its rim, as though some one had attempted to scour it and left a few spots of grime.

This morn I change my schedule and instead of preparing breakfast at once I make my way to the wild cherry tree where the squirrels go in search of fruit. They are early risers and though I have been reaching the tree by six o'clock I think perchance they have been there before me. I find I am too early for the birds even, for not till I have been seated ten minutes does a robin fly into the lower branches. These wild black cherries,[17] when fully ripe, have a large seed but between it and the skin there is

[17] *Prunus serotina* Ehr.

a narrow space filled with delicious juice which possesses a tang unlike that of any other wild fruit hereabouts, unless it be that of the sand cherry[18] of our northern dunes. The latter is a dwarf form with a larger and sourer fruit. On account of the size of the seed the amount of nutriment in one of these black cherries must be small, yet the woodpeckers and robins flock to them by dozens, and I have seen young robins in the trees so gorged, and perhaps partially intoxicated, that they could scarcely move. The leaves and twigs of the tree contain a small percent of prussic acid and, if eaten by stock, produce serious and sometimes fatal cases of poisoning. The bark is often used medicinally, and from both it and the fruit a flavor is made for use at soda fountains. Squirrels also like to vary their diet with the ripe cherries, perhaps use them for dessert after their morning meal of bark, mast or grain.

For half an hour I wait but no squirrel makes its appearance so back I go to camp and breakfast, consisting of an orange, cantaloupe, fried bacon and potatoes, bread, butter and hot water. Served with the sauce of hunger it is enjoyed as only a meal in the open can be.

The dishes washed by 6:30 again I go forth with fowling piece, this time up the valley to the eastward. Sauntering slowly onward, paus-

[18] *Prunus pumila* L.

ing at intervals and gazing upward, I finally see a bit of something fall from a tall maple whose base is near the top of the bank on my left. Soon some twigs in its very tiptop are seen shaking and then a glimpse of a brownish-gray bunch is had. Up jumps Samantha to my shoulder. 'Tis a long shot, but I let her go. There is a jump and a scramble by the squirrel for terra firma and some other tree. Half way down he changes his mind for I too am scrambling up the steep bank to head him off. Reaching the top I see nothing of him on the ground and so conclude he is still in the tree, perhaps in a hole. A close scrutiny of every limb and square foot of bole then begins. Yes, there he is, stretched out as flat as possible on a horizontal limb, sixty feet above the ground, with just enough of his body showing to penetrate. Another shot and down he comes. Murder has been committed but my dinner is assured. Thus ever doth the weaker succumb to the stronger. Thus from the beginning hath one mammal been sacrificed that its stored energy may be used to rejuvenate and quicken the life blood coursing through another mammal's veins.

Though a naturalist I thus kill at times for sustenance, as the squirrel, the rabbit and the wild duck; or for study, as the butterfly, the beetle or the cricket, but nevermore, as when a youth, for pure wantonness; nevermore to see the

object fall, its joy of living forever quenched. Even now at times I step over an ant, never on it when I see it in time, and no snake, except the poisonous one, doth fall a victim to my hand.

My squirrel is an old settler whose bones I shall have to stew before his muscles I can chew. Maple seeds were what he was seeking, the kernels in the bases of the long samaras, the tree-top being full of them. On many of the more slender upper branches of this and other near-by maples I note scars several inches in length and often reaching entirely around the branch. Some are old and yellow, others white and fresh. They show where the squirrels have eaten away the bark during the late spring and early summer, when for them there was little else on which to feed. This year there is no mast of any kind, not even a beechnut in the old pasture, and the neighboring cornfields of the farmer will doubtless suffer much during the months to come.

Once again, O boulders gray, I greet you! Once again I come to you with a feeling of reverence in my soul—reverence not for you but for that part of my past which I have spent by your side—for those happy hours when first we met, when hope was high, when ambition towered, when love sang songs, when duty called. Why should not a man revere his dead

past? If he has attempted to do what was right; if he has accomplished something, be it much or little, for the betterment of the world; if he can feel at times within himself a glow of satisfaction at having lived, then should the spot where he *did live* be sacred and he should revere it not for itself but for its associations.

To-day the Neonymphas flit by as they did ten, yea, a thousand years ago; not the same ones, but the life eternal which was begotten by their ancestors. In my case it is the same entity with new cells; the same individual with more experience, a greater sympathy for the mistakes and follies of youth, a greater reverence for the old, a greater regret for the years that have gone, for the deeds that were dreamed, not done.

And you my boulders gray, you too have changed. The ceaseless sweep of the free pure air above, the coming and going of summer's rain and heat, of winter's snow and ice have lessened your bulk, have carved more deeply the little pits in your surface. You have not seen much of the great world beyond. You know not as do I the struggles, the despairs, the blasted hopes, the longings, the joys of minor successes, the cries of the unfortunate, the pall of death. Your years are largely repetitions of themselves. Time, the ceaseless, is to you unknown. The Augusts bring to you the

warble of the vireo, the chatter of the fox squirrel, the drone of the bumble-bee, the caw of the crow—joyous sounds of nature, which to-day are repeated much as they were on the first August morn after you were dropped here, far from your parent ledge. Time then was here but Augusts were not set aside in its calendars. The days and months and years were unmeasured except by the coming and going of the King of All. Supreme as he doth to-day, he reigned here then—the one great and seemingly unchangeable master.

The black oak by your side whose rough and rugged coating of bark delights my eye was then undreamed of. The white oak at your left and the maple behind you were unknown. Centuries after you arrived they sprang from the sward. The soil, in part your offering, did nourish them until in time they sheltered you and became a prominent part of that small area which I revere.

Not you alone I love, but you and your surroundings. Not man alone is eulogized, but man and his deeds. Ten thousand men are born, grow to man's stature, toil, die and are forgotten. One other arises, hopes, dreams, lives, *does*. He too dies but is remembered because what he dreamed and *did* were original with him, were carved by him out of the unknown, out of the matter and by the forces

which the God of Nature put into his hands and which he fashioned according to his own ideals. No man ever achieved great success by *following.* He only who forges to the front, daring to do what other men have said could not be done, daring to be original in thought and *deed,* he only is the one who lives, not for a day, but for eternity.

At 6:30 the shadows of eventide are again falling about me, the rays of the sun no longer visible. The quietness of an August eve enthralls my woodland glade. I sit for half an hour and listen for the semblance of a sound. The stillness is as that of death, as that of the depths of a cavern where no life abounds, the rustle even of a bat's wings absent. Too soon it is for the minstrels of the night to begin to attune their instruments.

This afternoon was devoted to visitors from the old farm house. The freedom of the camp was theirs, the boulders pointed out, the cuckoo's nest and thicket of prickly ash visited, the trill of the mole cricket heard. In the balmy air of a perfect summer day we sauntered. We lived, passed contented hours, ate, drank and were merry. What more can a human wish?

Sunday, August 9.—One week ago, this very hour, it was an experiment. This morn it is an

accomplished fact. One week, O Nature, have I been all the time a devotee to thee! It has not been a week lost, but a week gained—a week of my own in which I did that which my mind listed to do—only that and nothing more. I have not grown as did Thoreau, while he watched the sumac leaves along the borders of his unfenced wilderness, but I have been—content. Odors royal, medleys of the fragrance of the fields, have catered unto me, pennyroyal and peppermint, prickly ash and everlasting, earth odors also of the dewy August morns. Music of many birds has come unto my soul. Sunrises and sunsets, morning stars and clouds in all their varied splendor have I looked upon. The moon each night hath bathed me in the glory of her resplendent beams. Unto mother earth have I also tried to do full homage. On her bosom, close to her sod and her mold have I reclined for many a happy hour. Of her have I written. To her is due full honor for the meed of content I have had.

The young cuckoos have their eyes open today, and when I approach they do not raise the head for food as when they were unable to see, but instead huddle close together and utter in unison a low hissing sound. They have seen for the first time a little of that great world which they will occupy for a few short years. As yet they doubtless suppose its horizon to be

that expanse visible from the rim of their nest of twigs. In a few days, if some cow-snake or other varmint does not meanwhile gobble them down, the slopes of the valley will bound for them the world. A short time later its area will expand to the borders of the old pasture. In less than six weeks, however, or by the time a few hoar frosts have sent into the great unknown the major portion of that winged and creeping food supply of caterpillars and other insects on which they mainly depend, under the guidance of their parents they will be southward bound and for months will see more of the world than many a human. Then back with the sun to the vicinity of their thicket of prickly ash will they travel, back to the spot where they first knew life—back where the halcyon days of youth were spent, where food was theirs for the asking, where the mother's wings sheltered them from the night's dews and the rain, and the father warned them from the encroaching shadow of the hawk and the jay. Back will they come, just as back to the scenes of youth many a wandering human goes; but, like the human, they will not find it as it was. No sheltering wing will cover them by night. Food will be theirs only for the seeking, for the labor of taking. Sharp eyes must they ever have open; swift wings must they ever hold in readiness; dense coverts must they know.

Then a new spirit will enthrall their beings. The desire to perpetuate their kind, deep seated and as old as life itself upon the earth, will unfold within them. The joys of mating will be theirs. Soon a new home will be constructed, a new family of cuckoos, to do and be what they have done and been, will be reared and thus the little cycle of a year's existence will be rounded out. Many times may it be multiplied. That many a mulberry may stain their gullets a deeper hue and many a caterpillar tickle the lining of their stomachs, is the wish of the first hob-goblin whom they saw, the first supposed enemy at whom they hissed.

In the great cities and larger towns of this country to-day nine men out of ten sell their most precious possession, time, the only thing which they can really call their own; sell not only their hours but also their stored muscular and nervous energy. They are therefore slaves for something to eat, drink and wear. In the country man is more often his own master. If he owns a farm, no matter if only a few acres, his days are his to do with as he will. No man can say unto him: "You must be here at seven o'clock, punch a bell or turn a key that I may know that you are not one minute late. Here with a short interval for lunch you must stay till five o'clock. Here you must give unto me your utmost energy that I may prosper from it.

A slave to me each day you are, and in return I give you two or three paltry dollars that you may keep the life blood coursing and renew the expended energy that it may be again set free for me. You must rest at night only that you may the better toil for me the coming day." Why any youth or man prefers this slavery of the city to the freedom and pure air of the country—that habit of gregariousness in the human, that desire to flock where there are others of his kind, in part explains. Eight months or less of toil in the country or small town, where each man could own his own farm of a few acres, or if not that, his own lot and garden, would furnish sufficient food, fuel and clothing that at least the other four months could be his very own to do with as he wished.

Another great cause of this city slavery is covetousness, or the desire of one family to own things as good or better than their neighbor, whether they can afford them or not. Why do we thus covet? Why do we wish so much trash? Man once had only his body—naught else, not even a jews'-harp or a fig leaf. In this he was like every other animal that has nothing, yet lives content. No property to carry from place to place have they; just a den or a nest, where the newborn young can be reared; a home for a little while without one stick of furniture, one

piece of clothing, except that which nature gives unto them.

Of every hundred articles which we possess in our homes we could throw away ninety-four and live more contented, more happy, less encumbered lives. Diogenes had only his tub; Thoreau at Walden his three or four pieces of furniture. A lady once offered the latter a mat, but he "had no room to spare within the house nor time to spare within or without to shake it." He therefore declined it preferring to wipe his feet on the sod before his door. A few chairs, a bed or two, a table, a book shelf, a stove, what else of furniture does a person need? What more can a millionaire possess that is really necessary? Better, far better, to have little and be independent than to have much and serve a master for a lifetime. Like Thoreau "I would rather sit on a pumpkin and have it all to myself than to be crowded on a velvet cushion."

It is this insane desire to own things like those of our neighbors, pianos, automobiles, mahogany furniture, oil paintings, diamonds, china, silverware and a hundred other luxuries, that brings discontent, sorrow, shortened lives, despair, into our homes. It is this that causes the average man who is a servant or city slave to spend every cent as fast or faster than it

comes into his hands, looking never forward, but ever only at to-day. Broken in spirit he is willing thus to serve, to do without question that which his master with money, oftentimes greatly his inferior in intellect, asks or demands that he shall do.

"Theirs not to reason why,
Theirs but to do and die"

applies as well to the millions of toilers in the cities, engaged in the great struggle for existence, as to the famous six hundred that charged the forlorn hope at Balaklava. Back then to nature, to the content with little which was the richest possession of our ancestors, to plain living and high thinking, to love, to duty and to work.

Dudes and naturalists belong to different genera. The woods judge not a man by his clothes. The older they are the more the woods yield unto him their secrets. With a pair of heavy shoes and an old pair of trousers, patched and frayed, he can travel freely and at will through bramble and thicket, over barbed wire fence and through bog and morass after any object which may strike his fancy. At any point he can throw himself down and rest without thinking of his attire.

The old clothes themselves seem to rejoice when he dons them for an outing. The pure

clear air of the country has perhaps not fallen on them for many a day. The rain drops may not have pattered upon them with freedom since they were unspun wool on the sheep's back in some old pasture like this. How they must delight in getting back close to the grass and the sod from whence they came. They cling to the brambles. They clutch at the earth. They would remain in the open forever. The elements in them long to be free again, to be reduced by fire or decay to the primal elements of carbon, hydrogen and oxygen that they may again have a chance to become a part of some living thing, may again feel the thrill of the moving sap or blood of life and that pleasure which is perhaps theirs when a new cell is begotten. For cells are living things whose life work in part is to beget other cells like themselves. Elements make up cells and perchance may have a longing to be again in action, to feel again that affinity for one another which is often shown in the laboratory where they rush together to form new compounds.

As long as the elements in my old clothes remain in the woolly fibre they are prisoners. Any longing for a new chemical union which they may possess cannot be realized. But set them free or transform them into some more easily separated compound like water or carbon dioxide and they are eager to do and die again

in the great battle of life. Leave a shred or a fibre in an old pasture like this and in a few years it will by decay, become part of the earth's mold, then grass, then perchance the flesh of mutton or beef, then part of a human, perhaps of a so-called king, for export cattle grow on these hills. Or better than a king perchance it may in time form a part of the cerebral cells of some great thinker or statesman, and so have a place in the ruling of the world; that is, the ruling of mankind, for no man's brain can rule the world. Is it too far-fetched, therefore, to imagine that a shred from the frayed edge at the bottom of my old trousers may, in the course of a few decades, have somewhat to do with the destinies of nations? Anyhow, why not wear them to the woods and give that shred a chance?

My June-time Home.

June-time Fancies.

"Many men travel to the Nile to see the lotus flower who have never seen in their glory the lotuses of their native streams." —*Thoreau.*

Tuesday evening, June 6, 1911.—In camp! For the first time this season my canvas shelter is stretched taut. For the first time at eventide I too am stretched out upon the lap of earth and gazing starward into her canopy of sky. Just as the sun was sinking I drove the last stake which holds my tent in place. It is pitched for a fortnight or so on a little terrace two miles east of Bainbridge, Indiana, and by the side of a small stream which zigzags its way through a woods pasture on the farm of one J. M., an old boyhood friend of mine. Forty years ago this pasture was a large sugar camp —the one where I partook in the first "stir-off" at which I was a guest. Much of the area in the lowland where the maples then stood has been cleared and is now in cultivation, but along the brook and on the slopes and hills to the south and west the underbrush has been allowed to grow and many of the original trees still stand.

One-third of a mile to the east the brook empties into Walnut Creek, the stream where

I caught my first bass and goggle-eye, the stream along which I fished on many a day when the star of hope hung high, when life ahead loomed big. Along its banks, during my afternoons, I wish to fish and dream again, as I have dreamed and fished before. In it I wish once more to cast my lines—cast them baited with an angleworm—cast them for small fry and be a boy again. In the forenoons I shall seek in nature's realms peace for my soul, leaven for my brain, rest for my body.

As I lie stretched out upon the grass the shadows of evening are thickening. Twilight deepens and a thin mist is rising o'er the valley. A myriad fireflies vie with each other to outdo the lightning's flash which now and then doth illumine all the west with a vivid glow. No sound there is except at intervals the dull distant boom of nature's cannon. No warble of bird, no hum of insect, no quaver of frog doth break the solitude. At 8:30 the rain begins to fall, and I seek my cot and sink to slumber to the refrain of the patter of the drops upon my canvas roof.

Wednesday, June 7.—"Pe-chew´—pe-chew´, pe-chew´—qui-it´, qui-it´,"—the clear ringing call of the cardinal is my reveille. The sky is bright with the coming of the sun, bright and crystal blue with many a star yet visible and

peeping down at me. After I have rubbed the slumber from my eyes sufficient to see, my watch says four o'clock to a dot. My stove (consisting of three pieces of No. 4 wire about fourteen inches in length, four inches of one end of each bent to a right angle, the other end stuck firmly into the ground so that the horizontal portions are on a level) is soon in place and on its tripod above a bright flame of small twigs and brush I fry my bacon to a crisp, boil my water fresh from the spring on the hillside and, with an orange as a starter, I sit where man first rested and satisfy my needs.

It takes time the first morning in camp to put things where they can be readily found. Six o'clock is nearly at hand when with rifle and note-book I saunter up the valley beyond the junction of the brooklets, climb a long slope to the crest of a Knobstone bluff, spread an oil-cloth on the mold yet damp from last night's rain, throw myself down and wait for what may come of interest to record.

For twenty minutes I have watched a fellow mammal in the valley below me. It is a cotton-tail rabbit which, during that time, has not moved out of its tracks. It has been making its toilet and ever and anon sitting erect and gazing in all directions, the world-fear in its eyes; world-fear of hawk and hound, of sly fox and cunning mink, of creeping snake and the

strategy of man. Ever on the alert must be its eye, ever ready for instant action the strong muscles of its limbs, else it goes down without warning in the great battle of life which every instant and everywhere is being waged upon the surface of this earth of ours. Even I, had I been game hungry, might have leveled my rifle at its eye and tried the magic of a leaden pellet to quench the candle of its life.

As I write the cotton-tail has vanished. It perhaps caught a glimpse of me or scented some closer enemy. A theme for my brain cells for a little time it furnished. Long may it amble over these, its native heaths!

With a great squawking cry of alarm a crow flaps from the top of a maple about 75 feet away and almost on a level with my head. He had noiselessly alighted there and after a time spied me out. His cry is soon answered and in the trees about me gather his family, ranting and railing at me with their coarse crow jibes and curses. I am like a hawk or owl whom they pester and mock for hours at a time. If I can get the sights of my rifle leveled at one of them I shall let go, for I dislike to be the target for a crow chorus.

The crows hereabouts, egg and chicken thieves and corn gluttons that they are, have measured accurately the range of the old shot guns which I and other hunters usually carry, and are care-

ful to keep a certain radius from the man who bears one of them. A few of them may get the surprise of their lives if I can find them still long enough to take good aim and pull the trigger of my rifle. Even if the bullet does not enter their anatomy it will hum for them a keen air-splitting little tune which will soon teach them to treble the length of that radius whose outer end has heretofore marked the dead line between them and the man behind the gun.

The christmas fern[19], the upper tapering halves of its fronds dark brown beneath with great masses of fruiting spores, flourishes along the crest of this bluff. The false solomon's seal[20] and the wild hydrangea[21] are its most common companions. Mosses in dense gray tufts and lichens of many kinds also spring from the sandy clay soil.

This soil is derived in great part from the decaying of the gray flaky Knobstone which comes close to the surface on the uplands of these ridges. The residual clay from this Knobstone is composed mainly of silica or sand, alumina, iron oxide and a little magnesia, none of the essential plant foods occurring in the parent rock. No carbonate of lime, with its accompanying fossils rich in phosphates, is

[19] *Dryopteris acrostichoides* Michx. [20] *Vagnera racemosa* L.
[21] *Hydrangea arborescens* L.

present. As a result the soil is so poor that blue-grass will not flourish on it. Wire-grass, asters, sassafras, sumac, blackberries, black gum, beech and black oak are among the more common wild forms of vegetation which it produces. Thus poor in fertility it spreads over a wide area of the State. Easily eroded and therefore rugged and broken, its farmlands are perhaps less valuable than those of any but one of the great surface formations of southern Indiana. Where the streams during the ages past have eroded a valley of some width, there are small fields in their flood plains over which the high waters flow once or twice each year depositing a sediment of richer silt from the highlands above. These "bottom fields" are the oases of the hill farmers, the corn raised on them enabling them to fatten a few hogs, tide their cattle and horses through the winters and at the same time furnishing meal for their own corn-bread and mush.

The ridge on which I rest and write is on the extreme western edge of the Knobstone formation in this vicinity. Two hundred yards farther west, the Harrodsburgh limestone sets in and, together with the Mitchell limestone, forms the surface rocks to the westward over an area nearly twenty miles in width. This ridge then was once near the rim of the sea and over it and into the depressions far to the east and

north was swept and fell a clayey sediment. Here eddies played and tides surged and beat. Out there to the west was deeper water where corals and crinoids grew in profusion and helped to form the thicker layers of limestone. Here was muddy murky water, out there clearer depths which the silt and sand did not reach. Over all the same sun shone. On all the same moon and stars looked down. No man or other mammal then was here, no bird or butterfly, no tree or herb as now.

An atom in eternity, here I rest. Around me in great waves surges the airy envelop of a vast sphere. Plants stand erect and stationary at the bottom of that ocean of air. Animals of many forms move at will through its depths. Over all the rays of the morning sun in glory fall. We are his creatures and on us this morn he smiles. Time, unmeasured by the God of Nature, goes on and on. To him there is no now, no yesterday, no to-morrow. Only eternity, one vast whole, love filled, star beset, sun ruled, without a beginning and without an end.

Picking up a handful of the gray clay I sift it slowly down. From its midst a minute Staphylinid beetle takes wing; goes out freely and without fear into that ocean of air, goes out propelled by the God of love in search of a mate. It is but one of billions moving freely through that ocean on the same quest. Here, there and

forever, they or their kind do roam. Food for a little time they must have, shelter and warmth in certain degree. Given these they can live, but what is life to them if love be absent? So away they sail on the wing through that ocean of air, away and forever in search of a mate. It has been thus from the beginning; so will it be unto the end—and why?

Returning to camp at eleven o'clock I cooked my dinner, then rigged up some fishing tackle and went down alongside the spring near the farm-house for bait. The season has been very dry and the worms are few and mostly small. The old farmer, my life-long friend, helped me dig them; then down the roadway together we trudged, down to the bridge and up on the other side to the old baptizing hole or "burnt drift," where forty years and more ago I used to catch scores of sun-fish, suckers and goggle-eyes. Alas, forty years have changed things there as much as they have changed me. The old log that used to lie a few feet out from and parallel to the bank is gone. The bank itself has been cut back a score of feet or more. No sign of drift; no goggle-eyes there to-day. Up to the old spring we went. It too was partially filled with leaves and trash. The stone basin from which I had quaffed many a cooling draught in days of youth was wholly hidden. Nature had but little of old to offer me here, so back to the

bridge we went, and the farmer, his work ever pressing at this season of the year, started homeward. Sauntering on down the creek I caught just below the bridge, within less than three minutes after he left me, a long-eared sunfish and a goggle-eye. Calling him back I sent them to his wife who had said before we started that she was "fish hungry."

Below the bridge the foot of the Knobstone bluffs is, on the left, so close to the water's edge that in many places I had to walk in it half shoe deep. Down, on down I went, trying every likely place, but not a bite of consequence for a mile or more. Then two catfish and a sunny were hooked from the side of an old root near the lower bridge. Below this bridge a quarter of a mile is a bend and a deep hole partially filled with driftwood. At this, my objective point, I fished two hours. Many short quick bites the sunfish gave but only one was landed. Finally a new place at the base of a half submerged root of log gave me a fine goggle-eye and soon afterward a second one, and I was a boy again, rejoicing in my "luck." Baiting with a piece of minnow I got in a minute a long pull which took my cork to the bottom, and hooked, I knew not what, but something that bent the old cane pole its limit. Tugging and pulling, I finally brought above the surface and on to land a large soft-shelled turtle, kick-

ing, snapping and squirming as only such a reptile can do. Here was a reward for patience—meat fresh for broth delicious when properly made—broth fit for the palate of a king. Fish I had for supper, fish enough for breakfast and turtle for broth for dinner. The world had yielded unto me a living—for a day.

Back to camp I started, my way bringing up scores of memories of old. Back past the old "swimming hole" where I added another sunfish unto my catch. Here in the old days I had bathed for hours. Here I had caught bass and seined suckers. Here I had dreamed dreams of a future that never came to be.

All is not joy in camp life. On reaching my tent I found that I had had a visit from the cows. The ropes which I had stretched to keep them out had been broken and in part chewed. The face towel and dish rag which had been left hanging out had disappeared and presumably had become a part of a bovine's lunch. Had my front door not been securely hooked many of my other possessions would probably have disappeared down the same red lane.

While cooking my fish I heard a noise and looking around saw that the oldest and most scrawny of the varmints had returned and was half way in my tent. What I said to her it matters not, but she backed out and was away in a hurry. After supper the old farmer came

up and we chatted for an hour. "We will have to fence in the tent in the morning" said he, and I knew it would be done, for such jobs are to his liking. By 8:30 I was in bed, tired, dead tired, but full of the joy of living.

Thursday, June 8.—When I awoke it was 4:15 and so cool that I needed a heavy coat. Digging a little trench back from the bank of the brook and lining it with flat rocks I soon had a small furnace or cooking place which was much more convenient than my tripod cook stove. Frying fish, bacon and potatoes, added to which was an orange, banana, bread and blackberry jelly, I feasted with a relish. While washing my dishes the farmer came with post-hole auger, shovel and ax. We soon had five post-holes dug and a sycamore pole in each. Then going back a quarter of a mile his son and I lugged to the camp a large bundle of old woven wire. With staples and hatchet we soon had a fence, "horse high, pig tight and (perhaps) bull-strong." By the time we were through it was nearly eight o'clock and I had done three hours of strenuous labor. My home is not now in an unfenced wilderness for even my dooryard is enclosed and the tent appears too domestic.

Once more I hie to my lounging place on the crest of the bluff, there to loll and in revery

indulge. While I am not hunting I have my rifle by my side ready for whatever emergency may arise. A ground-hog may stick forth his muzzle from some burrow in the hillside. A crow or hen-hawk may alight within range. A gray squirrel may even bark when I sneeze as once happened, years ago, within fifty yards of where I sit. Any one of these would tempt me to try my aim. I would probably miss, for I am but a tyro at rifle shooting. What matters it? I would be the more content with having had the gun to miss.

On one side of where I rest and again half way down the bluff there are suspended from the twigs of trees two paper nests, cone-shaped, perfect in outline and but little larger than a good sized hen's egg. They are the product of a species of hornet, the first paper maker of the world. For a million years his sign has been hanging out: "Paper, soft and gray made to order (for myself) when needed." This paper is made from wood pulp formed by gnawing off small fibres of weather-worn but not decayed wood from old fence rails, posts, sides of houses, etc. These fibres are then reduced to a paste or pulp by the action of the jaws, probably aided by a fluid excreted by the mouth. This is strong, gray and waterproof and is spread out into sheets of considerable size which are used in enveloping the nests. The nest nearest me is

deserted and I cut off the tiny branch to which it is attached in order to take it back to camp. The owner of the other is at home, but not to callers. I do not relish the greeting which it is likely to give with its business end and so keep away from its domicile.

From where I recline I hear a sound, first faint then gradually nearer, half of nature, half of art. It is that of a hatchet cutting bean poles. An old boyhood acquaintance I take it to be, a so-called "ne'er do well," who comes out from town, two miles and more, and carries in a load of poles to sell to the people who have gardens and raise lima beans. The poles are his for the cutting and carrying, as the old farmer would give away his last possession to oblige a friend. Dealing in bean poles is not a high vocation but it gets one out into the open. It is akin to digging ginseng, picking wild berries, trapping, etc., all honest ways of making a living and so to be commended.

I move down into the thicket to talk awhile with the "bean-pole man." He does not offer to shake hands with me, though I have not seen him for fifteen years. Already this morning has he cut a hundred and twenty-five poles and carried them out to the road, and has fifty more to cut to carry directly into town. He asks about "sang," says he has found quite a quantity of it while cutting poles. He traps some in

winter, half-soles shoes, etc.; was married awhile and lived in sixteen different houses in eleven years. His wife is now dead and he "baching" with his brother. "Has done a lot of hard work in his time" but is going to take it more easy from now on. Is fifty-seven years old, stout and hearty. We sit down and talk of the old town or hamlet to the east where I first knew him and of which I often dream. I tell him so and he says he does not even wish to dream of it. He gets $1.00 a hundred for bean poles. Can cut them for that, but how about the carrying of them into town!

The dockmakie or maple-leaved viburnum,[22] a handsome branching shrub three to five feet high and closely akin to the black-haw, grows along the crests of these ridges; as does also, but much more rarely, the pipsissewa or spotted wintergreen,[23] a low evergreen plant whose shining ovate lanceolate leaves are on the upper side prettily variegated with white markings.

Butternuts[24] still flourish on the slopes of this old pasture, but are much less common and of smaller size than those of a third of a century ago. They are a favorite tree of mine, the deeply grooved gray bark, wide spreading branches and compound pinnate leaves forming a pleasing combination. Not long-lived are they like the

[22] *Viburnum acerifolium* L. [23] *Chimaphila maculata* L.
[24] *Juglans cinerea* L.

oaks and hickories, the light brown wood being soft in texture, light in weight, coarse-grained and therefore easily decayed. When split it gives off a delightful odor, similar to but less penetrating than that exhaled in autumn by the clammy outer surface of the oblong nut. The kernel when dried is sweeter and more pleasant than that of the black walnut. The nuts which fall to the ground and are covered with dead leaves in autumn are often edible in spring and then possess a quaint rich tang which tickles the palate of the roving naturalist as well as that of many a rodent which feeds upon them.

Fuzzy gnats dance in rhythmic mazes before my eyes, while their cousin, a slender, reddish-gray mosquito, probes my flesh. I do not feel him until his body is red and gorged with my blood. After swatting him the itch begins. Niches they fill in the great scheme of nature. Organs they have for performing all the duties of life. Those duties but few—to eat, grow and reproduce their kind. Lowly creatures we call them, yet "lowly" only because we esteem ourselves "high."

I lay me back and doze; forget for a little time nature and all her forms. Body and soul awhile do seemingly part. For the time being there is no *I*, yet the great world moves on without a bobble.

It matters not to the earth—mother of countless forms—whether I wag on with her or not. It matters much to me. She is here for a million million years, I, perhaps, for less than a score. Unto me, while I remain, she offers her bosom freely. Close to it I can recline as I do this morn. From it I may, by rooting and delving, secure enough of the milk of sustenance to sustain life while here I stay. That is the most she can offer me or any human. Life and nothing else had I when I was ushered forth upon her crust. Even life I leave behind when to her I say farewell. For the days which she has suckled me, for the years which have been mine, for the pleasures few or many which she has granted I do her reverent homage.

My dinner to-day was not of my own cooking. I had dressed my turtle and sent it by the farmer up to the house for his wife to cook. She had a very good stew made of it, a little too thick for good broth. In addition, we had pork sausage, cherry cobbler and other things. The three mentioned were the "pieces de resistance," if there can be more than one such. The "other things" were "fillings." The farmer, his wife, or "the old woman" as he invariably calls her, and their daughter-in-law did not partake very bountifully of the turtle stew. They tasted it, pronounced it good, "something like

chicken," and let it go at that. They are not epicures. A youngster of five or thereabouts asked for it four times. I partook of it as many or more. He and I are gourmets. We believe in nature's food when we can get it, not always in civilized domestic food like minced pig.

While dinner was preparing we dug bait. The boy helped, and when a spadeful of earth was upturned and several worms exposed he would exclaim: "O my, three, two, six!" He was thus evidently but a beginner in arithmetic. At first he picked up the worms without shrinking. After a time, when one would wriggle in his hand, he would drop it as he would a hot plate. The old innate fear of a wriggling snake was perhaps back of this.

After dinner I started down the west side of the large stream, down past many a riffle almost filled with great masses of the water-willow,[25] now just beginning to show its pretty heads of purplish-white flowers; down with the odor of the wild fox grape in my nostrils. Distilled in one of his happiest moods by the God of scent, it is worth a mile's tramp any June day to whiff its perfume.

Three or four sunfish I caught on the way, then stopped at the hole where on yesterday I hooked the turtle and goggle-eyes. History

[25] *Dianthera americana* L.

never repeats itself when we a-fishing go. Not even a sunny did the hole yield this day. Leaving it I went on down, forcing my way through dense thickets of willows and weeds and over masses of driftwood along a wild untraveled portion of the stream. Here there were no fisherman's paths, no discarded poles or bait cans. For this season at least it was in the region of the unexplored. In such places one always catches fish. In an hour I had twenty-four sunfish, catfish and goggle-eyes—not big to be sure but big enough, when put together, to not only scent the skillet but tickle the palate with a meal of sustenance. The sun sank low with the cork still bobbing. Three miles and more were between me and camp. Reluctantly I left the haunts of my boyhood friends, the small fry, and with another pan o' meat, gleaned from nature herself, I homeward trudged, wading the stream twice to shorten the way.

Often do I recall to mind how, when a boy, on the first real warm days of spring I delighted in casting aside my boots and running barefooted over the grass. How soft and yielding it was. How the feet spread out muscle to earth and took firm hold thereon. What a sense of freedom each foot seemed to enjoy as it got back to nature, back as were all other feet a million years ago. It was so to-day when I shed shoe and sock and waded the creek. How de-

lightfully cool the water as it rose and laved my ankles. How my feet took hold of the slippery rocks and clung thereto. How soft seemed the sand and turf at the points of entrance and exit. Prison bound in woollen and leather for years at a time, our feet rejoice when for a brief respite we turn them out to grass—rejoice as though they were living, breathing entities with souls of their own. Soles indeed they always have, but they are hardened. It is the muscle, the soft inner portion, which is pleased with its new-born freedom.

While preparing supper I heard a voice and saw before me the old farmer with a bucket. "It is the rest of your turtle stew," he said; "the old woman warmed it up and sent it over for your supper." Thus do these kind-hearted country folk think of the welfare of whoever for a short time bides near them.

Supper over I threw myself down upon the soft sward and watched the moon's shadows lengthen; waited and hearkened for sound of bird or mammal which never came to ear. Only the blood tingling through the capillaries of my brain heard I. The blanket of the night fell slowly, the twilight lingering long in the eve of these June days. Alone in the wilderness seemed I, yet not alone, for the spirit of the great mother, on whose bosom I reclined, was with me, and with it present was I content.

Friday, June 9.—While eating breakfast at five o'clock this morn a feathered choir sang for me. It was that of a bevy of bluebirds which alighted in the maple above my head and warbled with cheery chortle unto one another and to me. Thus do I have music without pay, food for the hunting, water as cold and sparkling as a cleft in the rock can furnish and air as pure as the zephyrs can find and bring unto my abiding place.

Donning my rubber boots as a proctection from the heavy dew and taking a bucket of fish which had stood in the cool water of the spring over night, I wended my way up past another "sulphur spring," up through the old pasture where I trapped opossums forty years ago, down a steep hillside and up again to the old home of my hoyhood. The rosy dawn of morn had not yet called unto the home folks with sufficient force to thoroughly arouse, but my cry of "fresh fish" soon brought them out. Bartering my fish for a bucket of cherries, I sauntered back down the valley of the brooklet to my camp and then to my lounging place on the crest of the ridge.

While at the house I saw, just at six A. M., the "bean-pole man," hatchet in hand, go by. Now I hear the faint thud of steel on wood as he hacks away at elm and oak and sugar poles. Does he, too, rejoice to be out on the wooded

slopes of this old pasture on such a morn as this, or does the spirit of the desire to gain outweigh all thoughts of nature, even that which is seemingly dormant yet ever silently working in the soul of every man?

The chief attraction which caused me to pitch my tent where it now stands was the spring which wells out of a bluff between two layers of Knobstone about eight feet above the bed of the branch. The water of this spring is chalybeate in nature; that is, it is richly charged with a yellow, sulphur-like carbonate of iron which forms a pendent fringe around the rim of the bowl which the farmer has cut in the stone to receive it. No purer, clearer, cooler water occurs in any similar spring known to me in the State and I have quaffed from hundreds of them. To the country people they are usually known as "sulphur springs," on account of the sulphur-like hue which the mineral ingredient assumes when exposed to the air. Along the outcrops of the Knobstone they are especially numerous, as that formation is rich in carbonate of iron. The water of the wells which pierce it is often surcharged with that mineral, and then stains buckets and pitchers, in which it is allowed to stand, a rusty brown. Several of these springs well forth along the bluffs in both this old pasture and the one to

the westward, and they have never been known to fail, even in the most severe drouths.

Above the bowl of my spring great masses of the handsome dark green "tree moss"[26] have a precarious footing in the weathered particles of Knobstone shale and hang down ready to slide at almost any moment. A wild gooseberry[27] with its prickly fruit, now ripening, also o'erhangs the bowl. Higher up are clumps of wild hydrangea, an occasional stalk of white baneberry and bunches of hepatica or liverwort.[28] Wild ginger[29] flourishes in the shady dells near by, and there also a stalk of ginseng may now and then be found, while in March snow trilliums have I plucked by scores all about the spring. The prunella, a favorite of my summer blossoms, did I find on yesterday and near it also the slope was in places covered with the green stalks of another old acquaintance, the common lousewort,[30] now long past its time of blooming. These are but a few of my friends among the many herbs or shrubs which each day do greet me as I saunter here and there.

In a dry time, such as we have at present, the brook is wholly dependent upon the hillside springs for its supply of running water. The boulders of many kinds along its bed or im-

[26] *Climacium americanum* Brid.
[27] *Ribes cynosbati* L.
[28] *Hepatica acuta* Pursh.
[29] *Asarum canadense* L.
[30] *Pedicularis canadensis* L.

bedded in its banks offer but little resistance as the water glides by or over their smooth rounded sides or tops. Ever those flowing waters sing a song of cheer, of work, of action. Ever they seek their Mecca, the level of the sea. That is the lodestar which lures them on and on. Man may dam their progress for a little time but they gather in ever increasing volume until some are pushed over the crest of his barrier. Then onward forever do others follow.

Tiny the stream, yet this broad valley has it carved. Insignificant it appears, yet no power of man can stay wholly and for all time its onward progress. For down there—far beyond —is gravity calling, ever calling, luring, ever luring, yet silent as the grave.

O you babbling brooklets, how your rippling, murmuring waters make music for my soul! Whene'er I reach your banks I pause and listen as you answer ever the call of that sea in whose depths your God of gravity doth dwell. Always do you sing to him, "I am coming, coming am I," and while you sing you move. Working and singing, yours is a merry existence. Never do you pause to grumble but onward, ever onward, do you go until you reach your goal.

Scores, perhaps hundreds of times have the same particles of water, the same oxygen and

hydrogen, sung the same song as they rippled over the boulders before me. Over the boulders of many other streams have they also rippled and gurgled. For through countless ages past the sun—also their master—hath pulled them, times uncountable, up from that sea, away from their God of gravity. On the wings of his winds have they been borne. Each time, however, a great struggle ensued. Each time did gravity conquer and pull them down to crust of earth and along the seams of her old face to the rim of that great bowl, the sea.

How widely acquainted these waters must be. Here one month, there another, do they travel. Could they but speak they would doubtless say to some boulder gray: "Hello, old friend, how are you to-day? I have no time to pause and chat for my master calls and I must obey. I will see you again in a few years from now. Till then, good cheer."

On my way back to the tent, while reclining motionless at the foot of a steep wooded slope, I noted a chipmunk forty feet or more in front. Moving in short leaps, he came slowly and gradually towards me. Once he stopped, sat erect and washed his face as does a cat. He finally reached a chunk not two feet distant and I thought was going to leap from it to me. However he must have caught my body scent as he paused and looked at me for a full minute,

then, not in the least startled, jumped to one side and moved leisurely away. They evidently do not feed to any extent on mulberries as on his way he passed beneath a tree where the ground was covered with them. While watching him I saw also a blue-jay, cardinal and summer tanager, all within twenty to thirty feet of where I rested.

Reaching camp I found the old bony cow in the yard. Like many other things, the fence was not up to expectations. She had evidently just crawled under the wire as I saw her try to do again an hour later. I broke the butt of a cane fishing pole over her back without making her wince or even assume a trot in getting away.

Instead of fishing this afternoon I spent several hours hunting squirrels. The hunting was good, the finding poor, as I saw only one and it escaped after being missed a number of times. The day was very warm and I reached camp at four o'clock wet to the skin with the sweat of exercise.

Without other meat I fried bacon for supper, after which I read Bacon for an hour. In his Essays he has written many old thoughts in good language. His biographer tells us in the preface that Bacon was the wisest man which the world had produced to the end of the nineteenth century. He may have been.

In this old pasture there is naught to measure the passage of time but the changing shadows. No tolling bell, no clanging clock, no shrill shriek of whistle, no incoming or outgoing of steam or tram cars mark the hours. The matin call of cardinal at dawn, the keen whistle of the marmot near midday, the cry of the whippoorwill at eventide, are heard only in a few of the summer months, yet here time goes on, the seconds pass, the seasons come and go as regularly as in the busiest marts where men do congregate.

Saturday, June 10.—About one o'clock I was awakened by some strange noise, then dozed again. Soon the noise was repeated with more vim, sounding like the clanging of metal. I jumped up, and with rifle in hand went out. It was the same old bony cow trying to butt her way through the wire fence. I let out a whoop which Mrs. M. afterward said she heard a quarter of a mile away, and the intruder on my dreams moved slowly and sedately down the valley. However, she had broken my night's rest and slumber came not again for two hours and more. When I finally dozed a dog began to bark and whine. Again getting up I found a strange collie trying to get into the yard. On seeing me he fawned and wagged his tail, but I gave him a "get out" which caused him to

move down the valley much faster than had the cow.

Ants and cows are the abominations of this camping place. The other things like gnats, wood-ticks, chiggers and mosquitoes I can fend off or easily withstand. The ants of several kinds are all the time trying to feast upon my food, or crawling over my dishes and cooking vessels. When I find them in numbers on one of my tin plates I place it on my stone stove and the odor of roast formic acid soon greets my nostrils.

While washing the breakfast dishes the farmer came up bringing his ax and went to cutting large sycamore poles. These we wired along the base of the fence. He said he would soon have that fence so it would keep out wild varmints, like coyotes and hyenas. If it keeps out an old bony cow it will be good enough for me.

At 6:30 I am seated in a butternut grove watching the vicinity of a mulberry tree for the approach of squirrels. A pair of indigo buntings have flitted several times before me. They are silently hunting food, not noisily making love. Slender bodied black dragon-flies move here and there, resting at short intervals, poised gracefully on the edge of some leaf. Hackberry or emperor butterflies of two kinds[31] are plentiful and one of them alights frequently upon my

[31] *Apatura celtis* and *A. clyton* Bd—Lec.

breast or back, there opening and closing its wings rapidly for a few seconds, then starting out on a short circuit soon to return again. On yesterday I saw its cousin, the woodland butterfly[32] or pearly eye, a rare species hereabouts, resting on the base of an old stump. Argynnids or fritillaries, freshly moulted and beautiful, are common, flitting here and there close to earth, seeking doubtless some wild violet on which to place their eggs.

A large flowered mint[33] grows abundantly on the low ground within twenty yards of my tent, while the graceful bishop's cap[34] and branching spikenard[35] o'erhang the ledges near my spring. The Synandra, most handsome of our native mints, formerly grew in abundance in a ravine just north of my old home. It probably flourished there during all my boyhood days yet I saw it not. While studying botany in college I first became acquainted with it and many other of our wild-wood flowers and on a visit home was delighted to find the mint in that ravine. The same thing occurred with the snow trillium which grows here in numbers less than half a mile from the old home.

Nothing is more pleasing in nature than an open woodland pasture on a perfect June day like this. It is the high tide of one of nature's

[32] *Debis portlandia* Fab. [33] *Synandra hispidula* Michx.
[34] *Mitella diphylla* L. [35] *Aralia racemosa* L.

gala-months. It is "knee-deep in June-time." Insect life is in its glory. Birds rejoice therefor and have a surfeit of food. The growing tips of shrubs and trees stretch inches in a single night. The foliage of oak, maple, beech and other trees and the stems and leaves of the blue-grass are all of that rich, dark succulent green which betokens cells well nourished. The boles of the trees, gray, smooth, strong, upright, the slopes slanting gently down to the slowly flowing brooklet, the shadows shortening or lengthening as the hour determines, the sunshine glinting and glistening from a myriad of reflecting leaves, the breeze cool and refreshing passing ever by—all denote a perfect symmetry in the affairs of nature—a symmetry which can be seen at its best only in June-time, when warmth and moisture and sunshine and genial breeze combine in a day of growth and perfect summer.

And who does not rejoice to see plants and animals grow? In growing objects new cells are born in far greater rapidity than old ones die. New protoplasm is formed that other objects far down the vista of the future may live. In the tiny leaves, now just unfolding, the elements of nature are seeking their affinities, are forming combinations that in a few days will enable the mother plant to build up new tissue in stem or flower or fruit. Both leaf

and stem may serve as food for grazing animals and so soon become a part of man. Or on the protoplasm so rapidly being evolved in the cells of leaf a worm may to-morrow feed, wax fat and juicy for a week or more, then go to furnish nutriment and energy of song to some feathered friend of mine. Thus in a fortnight the energy of the sun's light, this instant falling on that leaf cell and being absorbed in the process of its growth, may be used in pouring forth to my ears the carol of the vireo or the cheery call of the yellow-breasted chat. Tracing thus the rounds of matter and of energy, noting how indestructible the one, how capable of change in action the other, my hours pass most happily, my days in this old pasture are as wine unto my soul.

> "Think me not unkind and rude
> That I walk alone in grove and glen;
> I go to the God of the wood
> To fetch his word to men."

Returning to camp about ten o'clock I went on down near the farmyard spring to dig bait, for J. M. and I are going fishing together this afternoon. He helped me and then went up the branch with a minnow hook and caught a number of dace and other minnows, for he disdains the small fry, and fishes with live bait only for big ones.

After dinner we started in a buggy, driving his old black mare named "Maud" with her colt tied along her side. Slowly we drove down the valley of Walnut Creek, down where I learned my first lessons in nature loving, though then I knew it not. Arriving at the pool below the second bridge we hitched. My old cane pole and line were ready and in less than three minutes I had a goggle-eye and two long-eared sunfish. J. M. wished to try this hole for bass so I went farther down stream, wading the creek at will and trying every little pool or eddy by the side of bank, log or submerged root. In three hours I had more than twenty sunfish, goggle-eyes and log perch.

After a time J. M. caught up with me. He had not had a bite and did not get a fish during the afternoon. He was fishing with a large hook for big fish, I with a little hook which the small fry could easily take. On almost any day from April to December I can go out along a stream like this with such a hook, baited with worms, and catch a good mess of sunfish, warmouth, catfish, goggle-eyes, etc. When properly fried in hot bacon grease no fish are better tasted. "Many a mickle makes a muckle." Why then should I seek, perhaps in vain, one big one when I can get twenty small ones which in the aggregate will weigh as much or more?

Why should I pass up twenty sure thrills for one or two uncertain ones? Besides while catching the smaller fish I am a boy again, and at my age I am not ashamed of being a boy, even if most men are. Like Riley at Broad Ripple,

> "I bait my hook and cast my line
> And feel the best of life is mine.
>
> No high ambition may I claim—
> I angle not for lordly game
> Of trout, or bass, or wary bream—
> A black perch reaches the extreme
> Of my desires; and goggle-eyes
> Are not a thing that I despise;
> A sunfish, or a "chub," or "cat"—
> A "silverside"—yea, even that!"

The log perch,[36] of which I caught three this afternoon, is a long slender spiny-rayed fish of the Darter group, which delights to rest on the bottom in comparatively swift water near old logs and roots. It bites like a trout with one swift jerk taking the cork to the bottom. I had two or three strikes from one the last afternoon I was out, but did not then know what gave such quick running bites at the bait. To-day, at the second strike, I hooked one and jerked it high in air. It came loose and fell back into the water but I recognized it by the dark cross-bars and slender body. Partially stunned it, like other darters and hog-suckers, lay on the

[36] *Etheostoma caprodes* Raf.

bottom close to me for a little time; but, when I started to wade in after it, was away like a dart up stream to the shelter of a log. All fish which lie on or close to the bottom of a stream, especially in any kind of a current, always keep their heads up stream. Those which swim freely about at different depths, as bass, sunfish, etc., rest with their heads in any direction. The meat of the log perch when fried is very white, firm, sweet and comparatively free from small bones, which is as much as can be said of any fish. Another fish whose meat I tried for the first time at supper was the horny-head or river chub.[37] Its flesh was also excellent being harder than that of most minnows, especially that of the common chubs[38] whose meat is soft and, according to Thoreau, "tastes like brown paper salted."

On reaching the farm house I divided my catch with J. M., and especially for Mrs. M. who, when I told her that J. did not get a bite while I caught over twenty, exclaimed, "You ought to have thrown him in the creek."

For supper I had fresh fish, fried bacon, bread, butter and blackberry jelly, stewed cherries, graham crackers and hot water—a feast in the wilderness, highly seasoned with the sauce of hunger. For nearly forty years I drank

[37] *Hybopsis kentuckiensis* Raf. [38] Fishes of the genus *Semotilus*

with my meals coffee, strong coffee, often without milk, always without sugar. Then upon a physician's advice I quit coffee and took up hot water. When tired and somewhat thirsty, as I was this eve, it "goes home," seeming to stimulate and strengthen the inner man more than coffee ever did. Give it a spoonful or two of sugar and a mixture of cherry juice, as I did at supper, and it is nectar, drink for the Gods, that is the Gods of the woods which are the only ones I recognize here in the old pasture these days and nights of June.

Sunday, June 11.—Not till 5:30 did I arise this morn. The day promises hot and sultry, the air being overcharged with moisture which cannot fall as rain. Seated again near the mulberry tree I write and watch for squirrels.

A big brownish-black fly, his back striped with a deeper black, his abdomen splashed with gray blotches, alights on my note-book. It is a common woodland species, rarely found in houses. He cleans his front feet, then his hind ones, several times in turn, by rubbing them over one another. His middle ones are wholly neglected. Perchance he cannot bring them into the proper juxtaposition, or perhaps goes through life without cleaning them. The only other move he makes for five or more minutes is to turn a number of times part way round

in a half circle. What brings him here; the odor of ink or curiosity? At length another of his kind appears. The two dart away and are soon lost to view in the mazes of the air. If on an ærial courtship they are bound they will doubtless achieve their mission in life—the highest mission to which any of nature's objects except man aspires—the choosing of a mate, the perpetuation of their kind that it may not vanish from the earth.

The fire pink[39] is about the only plant that adds a tinge of vivid color to the slopes of the old pasture on these June days. Here and there, at wide intervals, a few clumps fling their crimson banners to the skies. Bumblebees and butterflies are doubtless attracted to them in numbers and a few minutes ago a ruby-throated humming bird poised on brilliant wing and probed their flaming depths. As I go the rounds each morn from one mulberry tree to another seeking crows or squirrels, so this ruby-throat travels from one bunch of fire pinks to another probing their throats for nectar. Here again he comes, his wings invisible, so fast they vibrate. At this flower he darts, then at that, then to one of the bunch over there, then far away through the mazes of the underbrush in search of pastures new. A true woodland sprite is he, seen for but a second or two, then gone.

[39] *Silene virginica* L.

Was he really here or did I doze and dream his presence?

Sometimes I wonder if the squirrels do not listen to the crows and are warned of danger. A crow evidently wished to visit the mulberry tree but stopped in another tree a few rods off and "ha-ha-ed" a number of times. Then starting for the mulberry he saw me and with a shriek of anger and alarm away he flew. If the squirrel which ran from the tree as I approached was waiting to return, and understood crow language or the meaning of the tone, he was informed that there was a man in ambush waiting for him and so never came back.

The love-making days of many birds are for this season over. The sterner duties of providing for a growing family are at hand. The woods do not resound with matin songs and carols as they did a month ago. The softer chirps and more subdued twitters and warbles in which birds gossip and make known their wishes and successes have taken the place of the louder, more musical songs. The birds do not sit on the topmost twigs and sing of love. They flit about on the lower limbs and near or on the ground with an eye not open for a mate, but for a dangling caterpillar or fuzzy gnat.

Late in the evening a few days ago I saw in my yard in the city a robin with a long angle-worm doubled several times in its bill. It

alighted on the limb of a maple not ten feet from me, and uttered twice in succession a merry little chuckling warble. One could readily recognize the robin's characteristic note but in a very subdued tone. The bill did not open else the worm would have dropped but I could plainly see the movements of the muscles of the throat. That robin was a true ventriloquist. Why it tried to sing or tell a tale at that time I know not. Its nest was in the back of a yard across the street and no other bird was near. Perhaps it had passed a successful day and was gloating to itself that one more worm was to its credit.

While sitting here a wood pewee, a blue jay, two yellow-billed cuckoos and a little flock of chickadees have sauntered by on the wing, stopping wherever fancy suggested or the sight of a food morsel attracted. All uttered some low chuckling note of satisfaction or content. A zebra or checkered woodpecker[40] alighted in the mulberry tree, ate half a dozen berries, then flew to a near-by butternut, up and down the gray bark of whose bole he hopped and played hide and seek with a sociable downy. One of the cuckoos with a worm in its bill alighted on a twig twelve feet away, then instantly seeing me flew a couple of rods farther and swallowed its prey. I was motionless, but there is a differ-

[40] *Melanerpes carolinus* L.

ence in appearance, even to a bird's eye, between a man and a stump. Moreover, stumps do not grow in a single night where never was one before.

I thought a human yodelled for me but it was only a mosquito humming to my ear.

The wind soughs through the trees on the hill-tops with a great roar, but here in the valley there is scarce the semblance of a breeze. Thus are those humans high up tempest tossed while those who dwell in lowly places live lives of peace far removed from the great storm centers of human endeavor.

How varied are the forms of insect life which these June days prey one upon the other or upon the plants on which they dwell. All seven of the great orders of such life are represented within a two yards radius of where I sit. Mosquitoes, craneflies, gnats and midges represent the Diptera or two-winged flies. A snapping beetle crawling up a twig and a small leaf beetle on a May-apple, the Coleoptera. A caterpillar swinging lazily from suspended silken thread and a Neonympha flitting ever close to earth. the Lepidoptera. Great green bodied dragon-flies hawking up and down the near-by stream and a lace-winged fly creeping daintily along the underside of a walnut leaf are both members of the order Neuroptera. A half dozen species of Hemiptera I see, largest of which, on

the twigs of a shrubby red-haw, is the half grown young of a great stink-bug. To the Orthoptera belong those grasshoppers, not yet mature, which are nibbling the stems of the juicy blue-grass by my side, while the Hymenoptera are represented by a buzzing bumble-bee and a number of small reddish ichneumon flies which flit quickly from leaf to leaf in search of some host in which they may inject their eggs. Thus on every acre of the old pasture do myriads of insects pass the heyday of their existence in the genial sunshine of these June days.

To-day I dined at the old home place—for the larder at camp was not full enough to furnish a good Sunday dinner for a hungry naturalist. Returning at three o'clock I arrived just in time to see a half dozen town boys on their way home from the old swimming hole stop and survey my tent. It was a new home which, like a mushroom, had sprung up in the woods since they went by a week ago. They stopped at the spring and while drinking one of them espied a water snake basking on a rock. Hitting it time and again with stones, on they went leaving its head crushed to a jelly. Thus was a harmless and useful life blotted out in deference to the man of old who, naked and unarmed, dwelt in the wilderness affrightened at every creeping and crawling thing about him. Down through the ages has come this spirit of

fear of and enmity toward all snakes until every boy and almost every man thinks he has performed a deed of valor when he has crushed with club or stone or beneath his heel the head of every innocent crawling reptile that comes within his ken.

About five o'clock J. M. and his wife came up the valley, she with a bucket on her arm to gather wild gooseberries, he as a body guard and to chat awhile with me. After drinking some lemonade and resting for a few minutes she was up and away to visit every gooseberry bush in this part of the pasture, though she overlooked the one hanging over my spring. The berries are rubbed with a cloth to remove the spines and are then canned to make pies in winter when other fruit is scarce.

Out of the husks of the old the new must rise. I pick up the shell of a last year's cicada and powdering the dry fragments fling them in the face of the breeze which bears them on to new resting places. The bark of the oaken stump beside me has fallen in many fragments and is being powdered and reduced to dust by many forms of insect life as well as by the action of wind and rain. From the molecules of the cicada's husk, from the dust of the oaken bark, new life will some day rise to clothe again the bosom of the earth in springtime raiment green. What shall yet spring from my old husk? Is

there anything now within its bounds which will yet give rise to new thoughts, new ambitions? Has the best been put forth into a perfect ripeness? Alas, I fear that it is growing fallow, becoming devoid of some element of thought food which must be supplied, yet what that element is or where it may be found only the fates know, only the future can tell, and both fates and the future are forever silent.

Monday, June 12.—"Ché-wer-eet, ché-wer-eet, ché-wer-eet," was the first sound to break in upon my consciousness this morn. It was the matin call of my old friend the Carolina wren. "Life is sweet, life is sweet, it is sweet" he reiterated again and again, and for him on this June morn he doubtless sang the truth. Going forth I found him taking time off between bites to serenade me thus. He was flitting and teetering through the interstices of a near-by brush pile:

> Pecking now at this, now at that;
> Swallowing a spider and then a gnat.

Seeing me gazing at him he too stopped and stared a few seconds, then head upward, from the full strength of his tiny lungs, the volume of song welled forth.

After breakfast I go up the valley and lounge for an hour on the slope of the hill just above the stream. A flood of memory sweeps my soul

and pushes aside the curtains of forty years and more. Up the ravine to the left I have trapped raccoons and on the hillside above waited patiently for squirrels to show themselves, killing them in pairs as they came running down the sides of an old oak, now long since gone. To my right is the mold of a beech log which once rested on its limbs a few feet above the earth. Beneath and about it I once saw a covey of twenty or more young quails. As I approached they scattered and, as if by magic, disappeared, the mother meanwhile running ahead and fluttering as if crippled, in order to lead me away from the vicinity of her loved ones. Along the stream I have caught minnows from almost every pool and have on many occasions upturned most of the flat stones while searching for beetles and salamanders. None of these things I do this morn, but only dream and ponder.

A Camberwell beauty basks in a moist spot on the gray Knobstone shale, opening slowly and as slowly closing its handsome purplish velvet-like wings. It is one of the first brood of the season, now just appearing—the offspring of those which last winter hibernated in hollow trees and crevices of stumps. On a February day a year or two ago I turned over a black charred oaken chunk and found one of these butterflies clinging close to the under side, there

sleeping the sleep of winter, the sleep that awaits the zephyrs of April to call it forth into active flight. Its hue was so nearly that of its resting place that only the slight inequality in the surface caused by its body led to its discovery. Thus was protective mimicry exemplified in the choosing of a winter's hiding place.

A great boulder lies beneath a leaning elm which is bowed across the stream. Against its base is a mass of driftwood, flotsam and jetsam gathered far above by swift moving waters and brought to lodge against the boulder's base. In and out of the drift and in and about the roots of the hollow and bent elm are coverts and pathways where a mink has doubtless searched for song sparrow and wren.

Beneath a partially hollow log, just above my resting place, I find a quart or more of large empty snail shells, there gathered and the animals extracted by some sharp-nosed mammal during the winter past. In two of them are large black carrion beetles feeding on the putrid remnants left by the mammal, which was probably a wood mouse, perhaps a shrew. The shells are of a half dozen species, mostly common forms. Single shells and small groups of them with the animal thus removed I have often found, but never before one sixth as many in a single place.

As I look at this slope and the valley before

me and see how little it has changed during the forty and more years that I have known it; and then think back how many thousands of years it has been in the forming, I have but a faint idea of that time which has made up the past. O, how limitless those years, those centuries, those æons which have gone by! How ineffably long! How little can they be comprehended by the human soul. I travel far and wide over the surface of this old earth of ours. It is big, yet little. For a million million years, as man counts time, it has rolled on and on. For a million million years, the matter which makes up my bone and skin and muscle has been a component part of its surface, has been changed to and fro, shifted from rock to plant, from plant to animal, from animal or plant back to earth, to soil, to water. Of organisms uncountable, of humans perhaps not a few, has that matter been a part, yet always belonging to the mother, ever returning to her bosom. I as a human travel far and wide, roam for a few years freely at will, yet ever come I back to the valleys of my youthful days. For peace doth there abound. For the sky there to-day or to-morrow will be as clear and as blue as it was a million years ago—since it is the same sky—space illimitable reaching up, up, beyond the mental grasp of any mortal.

A crackle as of straw stems breaking hear I,

but it is only the sulphur-winged grasshopper arising and calling to his mate.

This afternoon the finny tribe again attracts. Up the creek they say there are no holes, few fish. Up the creek I go to prove that fish can there be caught. For a mile and more the bottom of the stream is Knobstone shale, and the water for the most part too shallow for even the permanent home of a sunny. In one place three long-eared sunfish are engaged in battle. They tackle one another head on, butt and push like a pair of angry bulls, sometimes nearly leaping out of the water in their rushing scrambles. After a time they see me, a common enemy, and the fight is over.

Ten rods above they or others of their kind have their nests, a dozen or more close into shore, in water not over five inches deep. These nests are shallow saucer-like cavities a foot or more in diameter, scooped out in the sand or gravel. In their centers are numerous small pieces of shale and rounded stones. One or two of the sunfish are hovering over each nest to keep away the minnows which are ever ready to feed upon the eggs. When the sunfish see me they dart swiftly away, but soon return to attack the minnows which have taken advantage of their absence to invade the nests. The mother fish dashes from the middle of the nest at a minnow, then back to the other side, where

another is waiting to rush in while she is after the first. It is only a phase of the great struggle, a battle for life even in the egg stage. Eternal vigilance is here as elsewhere the price of success. Not one egg in ten thousand will probably become a mature fish for some future angler like myself to tempt with hook and worm.

On up I go until finally I come to a hole large and deep enough for sunfish to inhabit and in ten minutes three are on my string. Wading the creek to some deeper holes I soon have two goggle-eyes and another sunfish.

The first time one explores a stream for small fry much of the time is taken up in locating the pools or holes wherein they dwell. It was so to-day. I was not satisfied to remain at these deep holes but went on up for a mile or more seeking in vain some better ones. The stream, as below, was everywhere shallow with Knobstone bottom. At the former site of an old mill there was nothing left but the remains of one or two logs. This was the first water-mill which I saw as a boy. I well remember looking down through the cracks in the floor and seeing the suckers in the mill race below. How big they were and what a grand place that old water-mill in those days of boyhood when the world was all embraced in a circle of ten miles radius.

From here I started back fishing again the deeper holes until of small fry I had a score or

more in hand. Thus had I proven that where people say there are no fish is often a good place to drop a hook and show them otherwise.

On my way back to camp I threw myself down on a grassy bank and gazed upward into the vault of blue seeking in vain for that star of mine which I knew was there, yet seeing it not till that greater day star had disappeared and the shadows of night were drawing close. Out into the future I have often gazed seeking in vain for the star of happiness which I hoped was there, yet seeing it not till youth and middle age were gone, then realizing that not happiness but content was the star which I had sought and that contentment is as near true happiness as we ever get. Thus had my star been present on those days when labor agreeable was my lot, when tasks well accomplished satisfied my conscience; present yet not visible till the glamour and impatience of youth had disappeared, till retrospection and the experience of age had come to be. Then did I know that the light of that star had guided me day by day, that happiness was often present when I knew it not.

Tuesday, June 13.—The face of the sun this morn is hidden and my soul therefor is sad. Only when his beams fall athwart my pathways, making for me shadows as I move, do I rejoice.

If the wood nymphs obeyed the commands of the party who demanded it, "poor Will," whoever he is, wherever he may be, must have gotten a devil of a spanking hereabouts last night. Whenever awake I heard the call "whip-poor-will—whip-poor-will"—fast enough at all times, but often in triple quick time as though the caller were suddenly excited. This very fast call was usually soon followed by a pause of several minutes, then began again the regular note.

A curious fluffy, loose feathered, mottled brown and sooty black bird this night caller, arriving here from the south as early as April 10, seeking the densest thickets, nesting on the ground, eating when I know not as it seems to call all night and to lie hidden by day. When flushed it arises noiselessly or utters sometimes a single "chuck"-like sound, flies a few rods away and often alights lengthwise on a limb, there squatting close so that its feathers will harmonize and its body appear to be a knot. No nest is constructed, the two white eggs, prettily marked with pearl-gray or purplish blotches, being laid on a few leaves, usually in a slight depression in the ground. Before the flush of the orb of day has faded the call begins. To one unaccustomed to the note it is weird, uncanny, a wandering voice, a cry in the night. Who "poor Will" was or what he did I know

not, but this bird and all its kind seem to "have it in" for him and are eternally demanding that he be punished.

A pair of blue-gray gnatcatchers flit here and there among the branches of an ash tree. One catches a white moth and beats it up and down against a limb to quiet its flutterings. When the bird opens its bill to swallow the insect, the latter darts away but is soon recaptured and the beating resumed, this time long enough to stun, then swallowed at a gulp and the bill wiped with evident relish.

"Cheer—cheer"; "pú-it—pú-it"—one the call, the other the answer, each repeated every five to eight seconds, in the foliage along the stream. 'Tis a pair of tufted tits on a bug-hunting expedition. They fly from shrub to tree, gazing everywhere and chasing every winged and dangling insect form that falls within their ken. Why are the tones of the two so different? Is one a male, the other its mate; or are they parent and offspring? Keeping about six rods apart, the "cheer—cheer" is never uttered but, in a second or two, the "pú-it—pú-it" is heard in reply.

Nature is not always what it seems to be. By ten o'clock the clouds have disappeared and the patches of sunshine and shadow alternate in beauty throughout the old pasture. Each is

changing every second, the one receding, the other lengthening. Falling as they do on the luxuriant growth of grass and leaf, together they give the woodland green a charm, a beauty, a loveliness which words cannot express. Peace seemeth here to reign and quiet to have her abiding place; yet strife is ever present and warfare never ending. Every bird and insect, every mammal and reptile if abroad, has eyes open and ears alert for the slightest move or sound which will betoken the presence of an enemy, or of something on which it can make a meal. Even I, sitting quietly here, have the rifle by my side and am looking and listening for crow or squirrel. But my rifle is not dangerous. It can as yet do little more than frighten. Twice have I shot at and missed that animated atom of a mammal, a gray-squirrel. Were it not for the sunnies and goggle-eyes which nibble at my hook, I fear that my meat each meal would have to be a smoked morsel of a domestic pig.

As I sit here waiting for game, I feel that I too am game for smaller forms. A double harvest of chiggers will I doubtless gather, and a mosquito every few seconds tries to drill a hole through my skin. Yea, verily, nature is not as peaceful as it seems to be.

The larger hackberry butterfly[41] is again in

[41] *Apatura clyton* Bd.

evidence. It alights on the edge of my note-book as I write, folds and unfolds its wings, then crawls onto my trousers and uncoiling its proboscis feels here and there over a space of several square inches. I note that the proboscis and terminal joint of antennæ are whitish-yellow in hue. It remains within four inches of my writing hand for several minutes.

That death for some form of life is ever lurking near was shown at noon to-day while J. M. and I were digging worms. A half grown chicken came up and was pecking at the clods which I overturned. I "shoo-ed" at it and it ran into some tall marsh grass a dozen feet away. In less than twenty seconds we heard its alarm peep, which was loudly repeated. Seeing a struggle in the grass I rushed there just in time to note a slender dark brown mammal slink away among the grass roots, while at my feet lay the dying chicken, the warm blood trickling from a gaping wound in its neck. The dog was called but failed to find the murderer. The chicken was left where it lay and two steel traps set by its side. It was the first time I had ever had a domestic fowl or animal killed that close to me. It showed that everywhere and at all times is going on the great struggle for supremacy, the great search for something to be eaten.

The water-willow is this year more abundant

along Walnut Creek than I ever saw it elsewhere. Acres of it abound in shallow running water and on the sand and gravel bars near the ripples and edges of pools. Its flowers must be rich in nectar for they attract honey bees and butterflies in great numbers. In wading through a patch to-day I was afraid I would be stung the bees were so numerous, and while putting on my shoes I noted a score or more of the handsome freshly moulted Argynnid butterflies scattered over an area of a dozen square yards of the plant.

Luck again was with me on my trip up stream to-day, that is, the "luck" which usually accompanies patient industrious fishing. Not having to hunt new holes, I had more time to try the known ones. Eighteen sunfish, log perch, goggle-eyes and catfish were on my string when I quit fishing, and in addition I had a medium sized map turtle,[42] to which one of my wriggling worms had been a lure too tempting. I have never tried a hard-shell turtle stew but shall do so to-morrow. When meat for stew is scarce in camp everything goes into the pot except snakes and skunks. If soft-shelled turtles are excellent for stew, there is no reason why hard-shelled ones should be cast aside, for it is the flesh not the shell which serves as the main ingredient.

[42] *Malaclemmys geographicus* Le Sueur.

Coming back to camp I cut across country, passing on the way the remnant of an old orchard, where, when I was a youth of sixteen, I earned by picking apples, of which I got one-third, the first overcoat I ever owned. My share of the apples was hauled ten miles, sold for about eight dollars and the proceeds invested in the coat. It was a huge rough bluish-black affair and so proud of it was I that I did not wait for cold weather but wore it to school one day without an undercoat and sat in it in the warm school room for several hours.

One of my most wished for possessions in those old days was a knit jersey or sweater-vest. The other boys mostly had them and how I used to admire them, closely buttoned and of an attractive hue. I cannot remember that my desire to own one was ever gratified. Another longing was for a pair of box-toed boots. These I finally had an old shoemaker make for me, but they were so small that he had to take them back and make me another pair which were correspondingly large.

Thus the sight of a few old gnarly apple trees in a sheep-grazed, blue-grass pasture calls up the memories of yore, of a youth full of desires and longings, full of hopes and ambitions for —I knew not what—but for some niche to fill in the great world beyond. In time it was found, but it was years in coming. Since then the ex-

periences have been mine. The higher pathways have I trodden. In the whirling midst of the great eddy of life have I been borne. From its center have I been cast to the quiet waters of its edges. Here in the old pasture, with a little leisure, a little peace, a canvas shelter, the blessing of content doth fall upon my soul and I can gaze upon the center of the eddy without a desire to be again in its whirling midst; can gaze —and be content in being again a boy.

Wednesday, June 14.—Up this morn to meet again a cloudy sky, a murky atmosphere and the rumbling of thunder in the distant heavens. After breakfast I rested for a time in the door of the tent waiting for the rain which every moment threatened to break forth. Meanwhile I dressed my hard-shell turtle, which yielded much shell and entrails, little flesh, but enough to flavor a good sized bowl of broth. When caught this turtle hissed like a goose. This seemed its only means of defense as it did not snap or attempt to bite. Its meat proved sweet and well flavored, as was also the broth.

Along the margin of the water, both up and down the bed of the stream which flows before my tent, there grows in great profusion a handsome trailing herb with roundish ovate leaves and large golden-yellow wheel-shaped flowers. It is the moneywort or creeping loosestrife,[43] a

[43] *Lysimachia nummularia* L.

European plant, introduced into this country and escaped from gardens into moist places. It literally mats the surface of the ground, and in spots the shelving banks, with a dense carpet of green from the midst of which the flowers put forth in beauteous contrast. Never before have I seen it so abundant as along this woodland stream, to which it probably found its way from a cemetery a mile or so above, the seeds each year being washed farther and farther down in time of overflow.

The weasel which killed the chicken on yesterday soon paid the penalty for the deed. J. M. informed me this morn that in less than two hours it returned and was nabbed by one of the steel traps. "An eye for an eye"—"your life for the one you have despoiled"—says the farmer unto all such varmints. Never again will it attack a chicken in the presence of man at noonday. Had it waited till nightfall it would probably have gotten safely away. Mrs. M. was so wrought up over the daylight attack that, when told that it had been caught, she exclaimed: "Burn him alive in the brush pile."

Those curious burrowing insects, the mole crickets, are much more common than is usually supposed. Hidden as they are beneath the surface along the margins of bogs, streams and lakes, they are seldom seen except by some one who is digging in such places. Yesterday while

seeking earth-worms we uncovered a half dozen or more along the side of the spring run. Goggle-eyes and sunfish appear to be very fond of them biting the instant they are seen. Just now I hear a male from somewhere in the bank before the tent, reiterating in ceaseless monotone its chirping love-call. Loud, clear, resounding it comes from a cavity in the boggy earth where the musician is resting. In the moist sand bars their runways, similar to those of a mole but not one-tenth as wide, can often be traced for a dozen rods or more. On one occasion in July the turning over of a chunk on the margin of a lake in northern Indiana disclosed a cup-shaped cavity in the earth in which appeared to be several hundred of the young crickets, crawling and squirming over one another like a mass of worms. They were less than a quarter of an inch in length and were probably not long hatched from an egg colony laid beneath the chunk. Many of the young had I often caught in small-meshed seines but never before had I seen them massed together in such numbers.

We of the great cities think too little of the farmer who controls and tends the broad acres of the country. Day in and year out by his honest toil he tickles the earth's crust that it may yield the more freely its stored nourishment unto the plant cells in whose laboratories it is fitted for our use. We seldom think of that

farmer as an intelligent human with longings and desires such as we possess. And yet within his soul hope lingers as in ours. Ambitions there do stir, and dwelling therein is perhaps more of the milk of human kindness, more of the love of fellow man than with us is found. He alone produces, we consume. Between us and starvation he it is who stands. Unto him, therefore, should we give credit due. For him we should at least have that respect which rightfully belongs to an honest toiling servant.

Sheltered by an umbrella from a drizzling rain, I at noontime tend my turtle broth. From the doorway of my tent I travel back and forth to the furnace. The smoke and flames rise prettily from my fire of chips and sticks. No wood have I cut while here encamped, but instead have broken by hand the larger pieces of a long-seasoned brush pile. An old fodder-shock, thrown over to the cows, but scorned by them when the juicy blue-grass is so plentiful, has furnished me kindling. My house needs no paint, my stove no blacking. My turtle broth this noon-day is more delicious than if cooked over a hundred-dollar gas range in the palace of a millionaire. No one of that class can boast of a purer water supply than that which wells forth from my hillside spring. Here I have a broad margin to my summer days. Here I am only a creature of the God of whim.

For the third afternoon in succession I went up the creek a-fishing. Not much success did I have until I reached an old partially submerged stump in a pool which had apparently not been fished by anyone but myself this season. Here at the first cast I partly hooked a large goggle-eye, bringing him so close to the surface that his silvery spots glistened in the sunshine. This so encouraged me that for a full half hour I tried to get him or one of his mates but without results until finally I lowered the bait close to the stump in a new place which I had tried unsuccessfully both days before. Instantly there was a tug and the cork went to the bottom. A jerk at my end of the combination brought out the largest and most handsome long-eared sunny I had seen this season. Trying both of the neglected sides of the old stump there was in fifteen minutes added to the string eleven sunfish, goggle-eyes and log perch. The perch here lived out in swift water fifteen feet or more from the stump. They would dart in, grab the hook and run with it out toward their abiding place. So quick were they that one had to jerk at the right instant; that is, just as the cork started downward, else they let go and were missed. Long and slender, they looked like young gar-pikes as they were jerked high in air.

The silver-fins or satin-sided minnows[44] are

[44] *Notropis whipplei* Girard

very troublesome in such pools as that in which the stump rested, nibbling at and taking off the worms almost as fast as one can bait. However, they dare not go to the bottom where the larger fish stay so, by putting on a heavy sinker which carries the hook down swiftly, one can usually circumvent them. A small hook and heavy sinker are therefore the two essentials for catching the fish which I was seeking. Most sunfish have a small mouth in proportion to their size, and if the hook be so large that they cannot take it in they also soon strip it of bait without being caught.

At the deep hole farther up the creek the worms were to-day used in vain. They did not once tempt the goggle-eyes which there abide. With a fat grasshopper I was more successful and with it landed two.

Back again at the submerged stump I fished for twenty minutes without a nibble. Then with a big wriggling worm I got a strike and far up in the air I saw the biggest goggle of the day. He had come loose from the hook, but too late to fall into the water. For an instant only he appeared above my head then with a thud went down somewhere far back in a dense thicket of young willows and horse-weeds. Dropping my pole I began a search, bending down the willows and weeds and scanning closely each square foot of earth. It took ten minutes, but back

seventy feet from the edge of the bank I finally found the fish and was again a boy. With him topping the string I wended my way campward, reaching there in time to hear the first vesper call of the whippoorwill. Supper cooked and eaten I was in bed by nine and slept the sleep of the just.

Thursday, June 15.—Mid-June, a glorious sunrise, a clear sky, a heavy dew! Mid-June and the first wild roses blooming for me a short distance up the valley. Mid-June and the peace and quiet of the old pasture my chief inheritance for the day.

This morn I gather my fruit from the lap of earth. Onto it, ever ready to catch them, have fallen during the night hundreds of luscious black mulberries and I vie with the early birds and squirrels in gathering them.

> "A feast to the gods do the berries bestow,
> To the bird up above and the poet below."

A full quart I get in eight minutes, picked up, not from sand or dust, but from the clean, dew-washed sward of blue-grass. Fish from the flowing stream shall be the meat and stewed mulberries the dessert of my noonday meal. Happy he who is a successful forager in the wilderness.

While eating my breakfast a yellow-billed cuckoo or rain crow, long, slender, cleaving the

air like an arrow, alighted in a sycamore bush in one corner of my dooryard. Filled with curiosity he peeks and peers, turning his head now on one side, now on the other, wondering perhaps as to the kind of a creature sitting before him. A gray breast, quaker-gray body and white spots on under tail feathers are his principal hues. A caterpillar hunter he, and even as he rests his sharp eyes spy one dangling from a near-by leaf. Pulling it down he swallows it slowly as if surfeited, then with head cocked on one side, gapes and gazes long and earnestly at me, until finally he is up and away like a dart from a bow-gun.

A shy bird this cuckoo, seldom seen at so close a range. Common enough in the summer months, arriving from the south about May first, it departs thereto in August and September. One of the farmer's best friends, feeding the livelong day upon caterpillars, beetles, grasshoppers and saw-flies, yet more often heard than seen. Its most common note is a somewhat dolorous "cook—cook—cook," whence the common name. Another is a cackling "ké-ock, ké-ock," rapid and vibrating. Swift, noiseless in flight, ever alert, it is, like the chat, a ghost-like denizen of our woods and orchards.

The wild roses have begun trying to outdo the fire-pinks in decorating this old woodland slope with posies gay. Their blossoms are much

larger and more showy, but lack much of being as striking as the deep crimson ones of the pink. The wild rose now opening is the climbing or prairie rose,[45] one of the more common and most handsome of our climbing shrubs. Its leaflets are three to five in number, ovate, rigid, sharply serrate, dark green above, paler and somewhat downy beneath. The petals are obcordate, or inversely heart-shaped, and when first open a deep rose pink in hue. The principal distinguishing character is, however, in the arrangement of the styles which are united in a protruding column instead of being separate as in all other of our species. Purity and beauty are exemplified in its blossoms and dark green leaves; grace in its long curving stems, while protection sufficient is given it by the many strong scattered prickles which ward off both the browsing kine and devastating human.

Several species of bed-straw or cleavers flourish in this old pasture and are now in the prime of their blossoming period. The most common one about me as I write is the shining bed-straw,[46] whose low slender stems are diffusely branched, the narrow one-nerved leaves all in sixes and minutely pointed, and the flowers white, very small, and borne on forked peduncles. Another common species is the wild liq-

[45] *Rosa setigera* Michx. [46] *Galium concinnum* Torr & Gray.

uorice,[47] whose much wider three-nerved leaves are in whorls of four, and the fruit when fully formed reflexed and covered with minute hooked bristles. These bed-straws are known by but few people other than botanists, yet twenty-two species of them occur in the eastern United States, ten of which are listed from Indiana. One introduced species is used in the flavoring of May wine; the roots of another furnish a red coloring matter, while a European form, also introduced, is used in curdling milk.

How little we really know of the uses to which many of our most common plants can be put or the true medicinal properties which they contain. What we do know is that which, for the most part, has been handed down from the Indians or from the wives and mothers of the pioneers. Simplers there were in plenty in those old days when they had to depend almost wholly upon plants for their medicines. Their knowledge of the medicinal virtues of any plant was largely first hand; that is, gained by personal experience. We depend upon the discoveries which they made and seem to be content with them. The simplers and herbalists of a century ago have vanished as a race, and their lore has been largely lost or forgotten. Few experiments are now being made to find the

[47] *Galium circæzans* Michx.

medicinal virtues of plants, yet not one in twenty has been properly tested and its real use found. After all the true use of any plant is to decorate the crust of this old earth of ours. They were here long before we as humans came to be. Why then should they be used to cure us of those ills which we have drawn upon our selves by living contrary to the laws of nature?

When for any cause I leave my resting place and then glance back at the old sheet of oil cloth spread upon the grass beneath the tulip and the maple, see upon it my note-book and botany and lying alongside of it, ready for instant use, my rifle, the love for my life in the open is greatly enhanced, the woods seem more and more my true abiding place.

Returning to camp I find there the old farmer with scythe mowing the iron-weeds from the plot about my tent. A sweep of the arm and the stout stems which have been growing since mid-April go down to death before the steel's keen edge. How little did they and I suspect this morn that this was their last day on earth.

This is another one of those "little jobs" to the farmer's liking. At his age he is not much of a worker on big tasks. A kind of a "jack of all trades" and general standby for the community has he been; able to quarry the rock and lay a stone foundation or a cellar wall; make an ax handle or a wagon axle, and do well

a score of other little jobs which to the average farmer are impossible. A fine shot with the rifle has he been and a fair fisherman for big fish, but liking best to spear, shoot or seine them, rather than to take them with a hook. A great lover of nature and a close observer of all things out of doors, the lack of training and education has made him a woodsman rather than a naturalist. Three such men it has been my privilege to know, and I count it a great good fortune to have had their friendship and at times their companionship for days.

How many forms of animal life there are about us on these bright June days. Everywhere on leaf or twig, beneath bark and chips and stones, in nature's forest pathways and along man's dusty roadsides, in the rippling waters of the stream and in and on the placid pools of lake and pond, in the air above and the caverns of earth below, doth life abound. Living energy combined with inorganic matter, has formed bone, muscle, brain and skin, the union begetting power of motion and thought or instinct. The sole ideas of many forms, if they may be called ideas, are the seeking of food, the quest for a mate. The earth has yielded the material, the sun his energy. Blot out or destroy the perfect union whose actions we call "life;" remove a wheel here or a connect-

ing rod there, and its complement, "death," results. The earth receives back that which it gave, but the sun is forever a loser, for the energy returns not to him but is dissipated, rendered impotent, becomes a part of that great ethereal space which intervenes between us and the farthermost limits to which the human mind can glimpse.

Instead of going a-fishing this afternoon I set up a barber shop beneath a hickory tree, and after working at that trade for fifteen minutes, put on my better clothes and went with J. M. to town. There I saw a number of old acquaintances, among them two old sweethearts of my boyhood days, and O how age had changed them! One of them, however, walked the streets erect, as though she owned the earth, which she does in part. The other was more bent, but had the same old cheery smile, the smile of long ago. Better, far better thus to smile than to walk the earth with a mien as though all others were your hirelings and your serfs.

Back to camp at seven and after supper I lie on the turf for an hour and dawdle away existence. The breeze brings to me from somewhere the odors of ripening wheat and new mown hay. Here the dreamer can dream and the idler revel in the fancies of his brain. The blue of the sky, star-studded, is overhead, the green of the sod beneath my body. The world

is mine in comprehension. What matters it whether time goes on or no. It leaves a margin for my soul.

Friday, June 16.—During the night the long wished-for rain came, steady and gentle. Lying awake I listened to the pit-pat, patter of the drops upon the roof. How the grass and oats, the corn and wheat, the trees and shrubs must have been gladdened as they drank their fill, the first good draught for more than a month. For hours it fell and this morn the pools in the brooks are again all full. The minnows are rejoicing and the wherrymen most happy as they skate to and fro across the limpid surface of the water. For the fall was so gentle and the earth so dry that no erosion has taken place and the water is almost as clear as that which wells forth from my spring.

As the sky is still o'ercast with gray, from which now and then a drizzle descends, I am writing from the shelter of my tent. No song of bird doth break the solitude. Like myself they are sun-worshipers, singing for joy only when his beams fall athwart their resting places. Not even a crow or jay doth scold, and the chat which yesterday did make the thicket on the hillside ring with his varied vocabulary —where is he this morn? Beneath some covert of haw or vine with tail cast down and head

dejected perhaps he rests, for he does not know the value of rain, nor how essential it is to his future happiness and life.

Before my tent, two hundred feet up the stream, two sycamores arise, straight and slender for sixty feet and more. Nearly to the top of one of them a woodbine or Virginia creeper has clambered, and is still climbing, still advancing so that soon its upper tendrils will be free to kiss the sky. The dark green, five parted leaves of the creeper contrast prettily with the large, light green kidney-shaped ones of the sycamore, while the foliage of the vine festoons the trunk of tree in most pleasing fashion.

During the drought the green herons reaped a harvest from the fast disappearing pools along the brooklet. On yesterday one arose from the site of a former pool near my furnace, and uttered as he flew his loud squawk of displeasure at my return. Tadpoles, crawfish, minnows, hellgrammites and many other aquatic and semi-aquatic forms he had found in the soft mud and beneath the smaller stones. Now that the pools are full again he will have to search longer and over a wider territory to satisfy his appetite and that of a nestful of his growing youngsters. Even as I write, up he arises from the margin of the same pool and true to one of his names—flies up the creek—uttering his cuss words as he goes. What

startled him I know not, but, unknown to me, he was there while I was writing about his breakfast. Perhaps he objected to some of the things I had put down as forming his bill of fare.

In the writing of these my daily experiences and doings, I rarely refer to the myths and legends of old, the sayings and beliefs of people dead and gone ten centuries and more. What matters it to me here what then they did and said? Fifty years ago most people thought, and even to-day a large number believe, that a man is learned only when he can readily quote the poetry or sayings of Aristotle, Plato, Shakspeare and Tennyson, or can recount the fables and folk-lore of long ago. Out upon such rot! It is second-hand or even twenty-third hand knowledge, carried down through the centuries from one generation to another—all right to read but nonsense to try to remember. The true naturalist should think for himself; jot down an account of the little things about him in nature's realms, for nature was here a million years before man came upon the scene. To me the call of the Carolina wren, uttered first hand unto my ear, is far more musical than any of the poetry of the ages past. The things which are now, not those which were; the thoughts which are mine to-day, not those of a wise man whose bones were dust long before the

pyramids were built, are the things and thoughts with which I would deal. The others are ashes or clay in comparison with the living green of the present. No man was ever wise, ever original, ever learned who could do little but quote poetry and rehash other men's ideas. But if out of the recesses of his soul he can beget new poetry, new ideas or new thoughts of the great world about him, then is he original, then alone is he worthy the high consideration of his fellow-men.

Wind, drizzle and mist were never to my liking. When anything is to be done let it be done at once and in the proper manner. This morn I could delight in a pouring rain such as June used to bring when I was a boy, such as it now sometimes brings when I am shut up in the dusty city; but this threatening, this thundering, this blustering of J. Pluvius is four-flushing, is bluffing. It keeps one from setting forth, keeps him on the anxious seat in his tent, dissatisfied, undecided. If it were really raining one would know what to do; if it were clear he would know what to do, but as it is he knoweth not.

The old cows still bother me much; not by trying to get into my yard, for that wire fence has proven that it is now bull tight, but by coming back each morning when I am away and nosing around my furnace, overturning

the stones on its sides and leaving their cards in close proximity thereto. If they cannot eat me out of house and home, they seem to be trying to stink me out, but not as yet have they succeeded.

This afternoon I lounge about camp and read. Picking up Mæterlinck's "Old Fashioned Flowers" I ran across this sentence: "The science of simples is dying out in the housewife's memory." This same thought I expressed on yesterday when I wrote "The simplers and herbalists of a century ago have vanished as a race." Again he says, speaking of the common wayside flowers; "They represent in short an essential smile, an invariable thought, an obstinate desire of the earth," while my words were: "Their true use is to decorate the crust of this old earth of ours." I had never read Mæterlinck's work until this afternoon, yet therein I thus found two of my thoughts of yesterday. They were original with each of us.

Flowers, birds and butterflies are the three things which more than all else go to make charming and interesting this old woods pasture. To the eye all are attractive, to the ear the birds do cater, while to the sense of smell many of the flowers are best known. Even as I write a little brown wood-nymph[48] doth flutter

[48] *Neonympha eurytris* Fab.

by. Earth lover like myself it journeys ever close to her crust, moving with a queer jerky flight and often alighting on the grass or on a log or chip, seldom on a flower or shrub.

A new song made by an old friend strikes my ear. It is the carol of the male chewink, and differs widely from the well known note of this bird as made in late autumn or early spring when it is scratching for beetles or seeds about the margins of an old brush pile or in the dead leaves which then cover the ground in the dense thickets hereabouts. This time the bird is high above the ground and with head in air is pouring forth his melody in a brief song of three or four syllables. It cannot be expressed in letters, but is far more resonant and charming than the well known "che-wink."

In my tent yard is a small bed of ashes mingled with which are a few pieces of charcoal. These are the remnants of fires I made before my stone furnace was completed. Unless bodily removed here will they remain for centuries. The ashes in a few years will become so blended with the grains of earth as to be invisible, but here they will still be, the mineral compounds of the maple wood I used in cooking. Charcoal is one of the most indestructible forms of matter. A nearly pure carbon it resists for scores of decades the action of air,

frost and water. It is the one thing which will tell some future visitor to this spot that here man paused; here he controlled fire; here, perhaps, was his abiding place. Charcoal, destructible only by fire; thought, destructible only by forgetfulness. If written or printed retained for centuries, perhaps for a time forgotten, then coming again to the eye of human and begetting a new idea. Thought, the leaven of eternity, the one thing which measures time, which chronicles the doings of Gods and men, which is the everlasting part of the soul. The thoughts of Christ, of Buddha, of Solomon, of Plato, of Shakespeare, of Burns, of Longfellow, of all great men, represent the everlasting, the eternal, the charcoal grains of those men. They lived, they thought, they died. That they lived and died, we the living know only by their thoughts that have come down to us. Their flesh and bones are to-day dust of the earth or combinations of matter in other living forms. Their energies are part and parcel of that sum total of expended energy which fills all space above. Their thoughts are here, the one part of them which we may grasp and know. If we would be remembered in the ages yet to be we should then think noble thoughts, thoughts which will stand the test of time, which will be worthy of reading by the humans of the future,

for: "Our thoughts are the epochs in our lives; all else is but a journal of the winds that blew while we were here."

Saturday, June 17.—The "get-up, get-up, get-up" of a Carolina wren from the ash by the side of my tent was the first sound that I heard this morn. A flicker cackled from afar his rattling reveille and I knew that another day had pulled the blanket from its eyes and was well begun. At first the sky was partly overcast and the morning air cool and crisp. My fuel was in large part damp as the sun had shone but little if at all since the rain of yesterday. The fire therefore burned slowly, and it was half past five by the time breakfast was over and things ship-shape in camp.

From my basin of stewed mulberries I poured off half a pint of juice and drank it at a draught. It was delicious and if fermented would doubtless have made excellent wine. Why could not many of the wild mulberries which annually go to waste in the woods be used for wine? They would furnish to it a new tang, one which the grape, the cherry and the blackberry do not possess.

In rubber boots I follow the bed of the streamlet from the tent up, one fourth of a mile or more, to an old water-gate. For the most part the water runs over the bare Knobstone shale

and for much of the way the same shale outcrops in a steep bluff on the south side of the stream. As I wade through the pools minnows dart wildly to and fro and crawfish amble swiftly backwards beneath the sheltering stones. Wherrymen and water-striders skate merrily in all directions over the surface, while small, slender, black dragon-flies arise in scores, flit onward for a rod or two, then settle down on some convenient leaf or twig.

From the sides of the bluff the maidenhair and christmas ferns, the wild hydrangea, spikenard and wild gooseberry nod gracefully towards the water, while here and there great masses of tall green moss hang by a precarious foothold. In many places at the foot of the bluff the sicklepod[49] flourishes, its long curved pendulous pods its most striking attribute. Here and there are scattered clumps of water plantain, while in one place, in full flower, is a fine specimen of motherwort.[50] It, however, is not a water-loving plant, and the seed from which it sprang has probably drifted from some door-yard or wayside far up the stream. Would that I could trace its history through the years that have elapsed since it was "naturalized from Europe" as the botany says it was. The middle lobe of the lower lip is prettily marked

[49] *Arabis canadensis* L. [50] *Leonurus cardiaca* L.

with purple dots, a fact not noted in Gray's book.

Boulders of many kinds, both large and small, are scattered along the side and in the bed of the stream. Their smooth surface is often plainly marked with striae; there graved while they were being dragged thither from their distant homes in the Canadian wilderness. From many ledges were they broken, quartzite, diorite, granite, gneiss, mica-schist and numerous other kinds of rocks being represented. On a large moss-covered, lichen bedecked one of granite am I seated as I write. Just before me is another in which the mica scales gleam prettily in the sunlight. How many times in the past have I blasted the hopes of some poor human who imagined he had gold in quantities when he possessed only the worthless mica of some old, decaying granite boulder.

Returning to camp I got my pole and a lunch and at eight o'clock, with some worms and a dozen mole crickets which I had secured the evening before, I went again up stream, gathering also on the way some crawfish for bait. They are cunning creatures and when they bring their caudal end down with a jerk, are very quick in motion. Those found were small, and sometimes two or three were taken from beneath the same dead leaf or small flat stone. About twenty were secured by making single-

handed grabs where they were supposed to be, but the grab oftentimes resulted only in a handful of mud and water. Whether they will prove tempting bait to goggle-eyes and other fish only the day will tell.

On my way across lots to the larger stream I stopped for an hour or more at the old home place to help in picking cherries. The wind was blowing briskly, so that at times my foothold in the top of tree was most uncertain. By tying the bucket to a limb both hands were free, and then, by clinging fast with one and with the other bending in the limbs and picking, the work was made more easy. I delight in gathering fruit of any kind, and especially apples or something that will fill the receptacle quickly. The cherries were very thick, oftentimes a dozen or more in a cluster. In picking with one hand some were sure to drop, but they were not wasted, as during every moment I was at work an old rooster and part of his harem stood beneath the tree and waited for them. Cherry flavored chicken meat should command an extra price in market. Then again the eggs of those hens may be cherry red, for in a newspaper a few days ago I read that one farmer's hens which had fed copiously on mulberries were laying purple eggs.

Reaching the larger stream at eleven o'clock, I soon had from the first pool at which I stopped

six fish, caught with mole crickets and small crawfish. The goggle-eyes seemed especially fond of the former, so that when I reached the main hole I had but three of the crickets left. Baiting a set line with a crawfish I tried the crickets with the pole in hand. Two of the baits were quickly taken but the third yielded a fine goggle-eye. While rebaiting the hook with a worm I heard something strike the water. Dropping my pole I grabbed the short one attached to the set line and landed a two-pound small-mouthed bass. It was the only bass of any kind I had caught this season and I was therefore much elated at my luck. When first hooked it had leaped clear of the water and in falling back had attracted my attention.

The goggle-eye,[51] also known as the "black perch," "red eye" and "rock bass," is, next to the small-mouthed black bass, the largest and best of the spiny-rayed fishes inhabiting this stream. Reaching a weight of a pound and a half, though most of those caught here do not exceed one-half pound, it is, par excellence, a boy's fish, biting voraciously at many kinds of bait. Within the past ten days I have caught them with angleworms, grasshoppers, hellgrammites, crawfish, grubworms, mole crickets, ordinary crickets, live minnows and parts of dead ones. In life they are olive green in color, with

[51] *Ambloplites rupestris* Raf.

many of the scales tinged with a dull brassy spot. After death they soon fade to a bluish-white in hue. They live for the most part in deep still water, such as occurs alongside the patches of water willow, and especially about old, partly submerged logs, stumps and piles of drift. The vicinity of rocks and overhanging banks, and cavities behind clusters of fibrous roots should also be tried, the bait being dropped gently into the water. If the fish be hungry it will take it with a rush which will carry the cork far under. It is necessary to jerk quickly as the fish lets go the instant it finds the bait is attached to something. When well fed it often nibbles awhile, then takes hold and pulls the cork gently straight downward, much after the manner of a good sized bull-head catfish. They are not very gamy, being much less so than the blue-gills[52] of the lakes, but oftentimes make quite a fight, especially when partly entangled among roots and drift. The flesh is sweet and the small bones few. Personally I delight in angling for them, principally because they bite quickly and one does not have to wait half an hour or half a day to get action for his labor. Again, as already stated, I usually fish for meat, not for sport. I seek numbers or pounds, not an extra hard pull. It gives me as much joy to catch a large goggle-eye as it does the average

[52] *Lepomis pallidus* Mitchill.

fisherman to hook a large bass. If I can catch six goggle-eyes to his one bass I am that much ahead in thrills.

Understand me, I do not object to bass, but being much fewer in number they usually bite too slowly. For an hour after I caught the one I did not have a nibble of any kind, then a big wriggling worm begot a strong bite; a long, slender fish was jerked high in air and went so fast and far I could not tell just what it was. It fell on the edge of the clover patch close to the brink of the bank. Running thither I was delighted to find a second bass of about a pound's weight. Two bass in as many hours and not especially angling for them! Luck again was with me. Luck is ever with the fisherman who tries all the holes, has a varied assortment of bait and plenty of patience, provided, of course, the fish are present.

While at this pool a large soft-shelled turtle came drifting down stream, his white belly, broadside on, facing up stream against the current. He was near the surface and seeing me dived, but soon came up again to let the current send him on. A half hour later I saw him in a pool forty rods below, still progressing by the same tactics. How far down he was traveling I know not. Perchance he had heard of a handsome widow turtle a mile or two below and was

drifting to her. More likely he did not know where he was going but was on the way.

It was late when I began my homeward tramp, yet I hurried not. My last day of angling for small fish had, like the others, been successful. The rays of the setting sun fell upon my pathway as from the stream valley I climbed the steep slope to the level uplands. Farther on I passed a field of ripening wheat, many of whose heads were bowed as human heads weighty with wisdom and experience bow when harvest time draws near. Two weeks before that field had been a shimmering sheen of green; to-night it was a motionless lake of gold. In time the firefly's glim appeared and the goodnight notes of the birds were uttered. All human sounds soon ceased and finally "night drew her sable curtain down and pinned it with a star." Reaching the old home I went in to leave a part of my day's catch and to talk awhile with the dear old mother—she who made me what I am—then tentward took my way.

Sunday, June 18.—The last day in camp! A glorious morn, the air cool yet without the ripple of a breeze, the sky without a fleck of cloud.

The twelve days here spent in this old woodland pasture, and along the stream that I have known best and loved most, have been days of pleasure. Balmy airs and perfect sunshine

have, for the most part, been my lot. I have lain on my back in the green pastures and beside the still waters and thanked the God of Nature that for the time being I lived and was content. No jarring, clanging noises have marred my sleeping hours, no grit of iron on rock, no dust, no noisome odors. True, the yellow-breasted chat has at times scolded and the crows jeered at me, but their rantings were of little moment. Peace reigned in the old pasture and quiet was his daily companion. Where these two abide there the joy of living doth also dwell.

Being a saving sort of a creature I always plan, when breaking camp, to have left as few provisions as possible. This time I am running a little too shy in some things. The eggs and bacon were both finished for breakfast and unless I can kill a squirrel, the chances of which murder are very remote, I must go meatless for dinner. Were the crawfish in the brook a little larger I would, as an experiment, catch a number and boil their tails. I have never tried them but have read that they are fine. One orange, two bananas, some potatoes and graham crackers are what is left. Many is the time I have dined on less. I forgot the sugar, solace of my soul, there being a cupful of the quarter's worth yet on hand.

When viewed under a hand lens many of the minute flowers of our smaller herbs are most handsome. For example, those of the Veronicas or speedwells and certain of the mints, which are purplish-white, are often very prettily striped or dotted with purple. In the brook, a few rods in front of my tent, there grows a Veronica which was unknown to me until yesterday. Having just determined it I find it to be the water speedwell,[53] the stems cylindrical, thickened, fleshy; the leaves lanceolate, clasping; the petals four, the lowermost or smaller whitish, the others striped with purple. It grows to a height of eighteen inches and is said to occur also in Europe and Asia.

Another herb whose flowers are grouped in dense heads and which has the lobes of the petals prettily dotted with purple is a mint which I have known as the hairy blephila,[54] though Gray's description is not a good one, the two stamens being as often included as exserted and the plant spreading by sending out runners whose leaves are more ovate than those of the upright flowering stem. It is a common herb on the lowland terraces of this old pasture and both flowers and foliage give off a faint but pleasing odor.

I have come for the last time to the crest of the Knobstone ridge to loll for awhile in my

[53] *Veronica anagallis* L. [54] *Blephila hirsuta* Pursh.

favorite resting place. My morning is speeding by on the wings of the wind. The water is rippling merrily in the brooklet below and the shadows and sunbeams are playing checkers on the valley floor before me. No sigh doth rise for the unfinished deeds of dead yesterday; no plans have I for the doing in the hours of the unborn to-morrow. Yet he who sighs never for the moments lost, who plans not for future days which may never be, he who is ever content, amounts to but little here on earth and his going shall be forgotten as are the hues and the odors of the wild rose that bloomed but yesterday.

While I do not own these woods I can sit here and enjoy them to the utmost. In the days that have gone by I have gathered from them an unearned increment of delight. Lowly objects manifold have come within my ken. Even as I write there peers up at me from over the brink of the bluff a clump of wild hydrangea which is just entering the full tide of its blooming period. The neutral ray flowers of the flat topped cymes are opening wide their white petals that the unattractive fertile ones of the center may be visited by pollen-carrying insects. Those ray flowers cannot perpetuate themselves. They create not new seeds for future life yet they have a duty to perform. Though in a month from now they will hang

withered and useless their blooming will not have been in vain. Indeed so necessary are they that each seed which in the future produces a clump of wild hydrangea will also produce other ray flowers like those which brought about indirectly its own fertilization. These neutral flowers may be likened to the great poets and musicians, the artists and actors among humans. They create not wealth, they produce no food or build no shelter. Diversion only for the toilers of the earth they yield. Unto them, however, those toilers give plaudits due, for by them their own sojourn here on earth is made the more enjoyable.

Strange as it may seem, houses were more plentiful in the country hereabouts a half century ago than now. But few have been built along the roadways since then, or if built they, for the most part, occupy the sites of old ones. Many log cabins and rude frame houses were then scattered over the land, usually close to some spring, the houses being located where water was handy even if roads were distant. Many of them were the homes of the pioneers erected when roads, except a mere pathway or cartway to get to and from the house, were not considered essential. A dozen or more of these cabins I can remember, which were once inhabited, yet to-day nearly every vestige of each has vanished. Three or four of them have in time

stood in the large blue-grass pasture just west of my camp. A sectional map of the county with the sites of these old dwellings marked thereon would be an interesting possession. The springs near which these cabins were erected are many of them still flowing, though with greatly diminished output. The people whom the springs attracted, the homes which they caused to be erected are gone—vanished forever from sight, and almost from the memory of man. An old apple tree or two, a pile of rude foundation stones, perhaps an old hewn log or a few half baked brick, a sweetbrier bush, a clump of catnip, horehound, burdock or hollyhock are the only signs left that here was once a house, the home of smiling women and merry children.

My canvas home, also erected where it is because a spring purls forth from a hillside, in a few hours will too have vanished and only these notes and memory will remain to recall to me at times twelve days of June-time in which peace was with me and content a possession of my soul.

A Bit of Knobstone Scenery.

July Musings.

"If as a poet or naturalist you wish to explore a given neighborhood go and live in it. Fish in its streams, hunt in its forests, pluck its wild fruits. This will be the surest and speediest way to those perceptions you covet." —*Thoreau.*

Wednesday, July 5, 1911.—In camp once more! In camp on a high grass covered terrace beneath the shelter of a great white oak. On the north, within less than forty yards and below me thirty feet, the clear pure waters of Raccoon Creek flow placidly onward with a gentle murmur. Just back of my tent, on the slope of a ridge which gradually descends to the water's edge, is a copse where wild raspberries, blackberries, grapes, hazel, dwarf oaks and many other shrubs and vines in great profusion twine and intermingle. Here also my mid-summer serenaders dwell, the choir that never tires of making music for my ear. A pair of yellow-breasted chats aided by a cardinal or two compose its membership. At intervals, especially in the dusks of early morn and eve, a wood thrush helps them out.

To the south of my tent is the greater part of my grass covered lawn, and on it are three

large white oaks, arranged in an obtuse angle. Grand specimens of their kind are they, their great limbs thrust out horizontally on all sides, thus furnishing a grateful shade at any hour of these torrid July days. A peculiar pleasing gray, bedecked near the base with numerous lichens, is the bark of these trees. Corn-cobs and other refuse scattered about them show that squirrels delight to rest on their branches and look out adown the valley to the south and west.

Beneath these oaks, close up to their boles, dwell, if any place hereabouts, the genii of inspiration. Here at least shall I seek them and for a little time each day beg the privilege of their genial company. Genial and genii—what the relation? Are the genii always genial? Do they not sometimes glower upon me as I approach? Does not my mind and body have to be congenial, that is have a certain vigor or be in a certain condition, a receptive mood before the genii will come freely forth to meet me?

Lying beneath the middle one of the oaks am I and gazing skyward through its branches. The stars are up there, yet mine eyes cannot pierce the ether blue and make them out. The memories are in my cerebral cells; the experiences are behind my years; the knowledge of things that were, the belief of things that are to be are with me, yet I cannot sift and separate, sort and combine as I could were the genii enthusi-

astic in my aid. Ever in my soul is a longing for, I know not what. Not for religion, for I have my own; not for love eternal, for it does not exist; not for great wealth, for it brings only a certainty of to-morrow's food and shelter, and to-morrow is ever unborn. The richest man on earth can only eat so much, can only sleep in one bed at a time, can only be sheltered from the storm, can only have about him a few things to his liking, and all these have I. This longing for the undefinable, the unattainable, has been with me from my earliest conception of life and will remain alway. To it I owe what of success I have had, for without its presence to prod me on I long ago would have settled down in that slough of despair or content where my companions of youth do mostly dwell. Often do I wonder if every man whose name is known beyond the pale of the county wherein he resides has this same unsatisfied longing within his soul. If so, perhaps to it he owes what little of so-called "success" has been his portion here on earth.

A strenuous day has it been, a day in which the mercury stood at 95 degrees or more from nine o'clock till nearly sundown. When sitting still one could keep fairly cool, for the breezes, unimpeded by underbrush or highlands, play freely about the tent. At seven A. M. I started from the old farm house with all my outfit in a

one-horse buggy. Two men, a tent-sack, duffer box, tent poles, folding cot, and a box and basket of provisions, made a bulky load for the vehicle; but we managed it and at eight o'clock drove down through the breaks of Raccoon Creek and dumped the load at the boat landing of M. M., on whose land my camp is located. The boat, an old flat-bottomed scow with square ends, was half full of water. This the owner and I bailed out, then pulling the boat to a near-by sand-bar we caulked its bottom with pieces of rope. Loading the outfit and paddling up stream some two hundred and fifty yards, we cut steps in the almost perpendicular bank to the first terrace, on which we unloaded my effects, then toted them up a steep slope to the level spot where now is home.

The tent up and possessions placed therein, we spent the next hour in cleaning out a basin for a spring which wells forth in a small ravine some forty rods up stream. Then back to camp, where we dug a furnace and swung the hammock where the breezes play. This work would have been enjoyable had not the sun meanwhile beamed down upon us all too friendly, causing the sweat to flow from every pore and producing that sticky, smudgy feeling, which to me is most distasteful.

It was now nearly noon and M., who had taken delight in helping me become settled in

good shape, took his departure for his home across the creek, while I proceeded to prepare my first meal in my new surroundings. My initial offering from nature was a pint of wild raspberries, gathered from the copse back of the tent and stewed for sauce. The long drought had caused them to shrivel and dry but when stewed they expanded and absorbed water until they were as large and fine as though rain in plenty had fallen on them in the weeks gone by.

It is my fear that my privacy in this camp will be too much broken on account of that gregarious instinct and spirit of curiosity which pervades the genus *Homo*. Dinner was not over when M.'s son, a youth of sixteen years or thereabouts, appeared and stayed several hours, finally taking the rifle and going with me on my initial fishing trip. As long as he was with me luck was wholly absent, but no sooner did he depart across fields to the mail box than I began to catch sunfish and in an hour had nine, one of them an especially fine old male of the long-eared[55] kind whose coat in diversity of color would have outshone that one most noted in which Joseph of old appeared.

Going back to camp I found there two other visitors awaiting my arrival. These I had to entertain as best I could during the hour or more which I had intended to use in getting

[55] *Lepomis megalotis* Raf.

better acquainted with my oak-tree genii. Then supper, a plunge into the stream to cool my complaining body, an hour in silent communion with the stars and the first day in my new home was at an end.

Thursday, July 6.—Up at 4:10. The wood thrush was singing for me a matin song delightful in its melody. Bucket and rifle in hand, like the pioneer of old, I sauntered to my spring. Its waters this morn are clear as crystal, for waiting, patient waiting, has given time for every drop of sediment to settle. Its basin is dug in stiff blue mud. The water is cool and pure, but it is no such spring as that of my June-time camping place, for carved out of rock, not mud, was the basin of that.

As usual ants galore are with me here, ants everywhere, both male ants and female ants. A basket is suspended to the ridge-pole of the tent and most of the provisions placed therein. Thus only do I hope to circumvent the cunning little rascals.

After the morning duties of camp life are completed, with rifle and note-book I sally forth, seeking both game for my pot and game for thought. Beyond my lawn to the south I find myself on a steep grassy slope, clear of underbrush and bearing many young walnut trees

which furnish a pleasing shade. Here for a time I rest and gaze out over the valley and the hills beyond. A great blue heron,[56] on slowly flapping wing, comes moving over. M. has told me that it often rests in the top of a tall dead tree which rises between my tent and the creek. It does not stop there to-day but, casting a leery eye in that direction, flaps on and on. A prudent bird is this long-legged, awkward, spindling wader; not taking freely to innovations like that of a tent which has sprung into existence since last it passed this way.

"Breaks of the creek" is a term much used by the country people of this region. It is expressive and applies to the hills and great ravines in the immediate vicinity of our larger streams. Many of these ravines along Raccoon are so deep and overhung with low trees and underbrush that the midday sun can scarce force through a beam to kiss their bottom levels. Breaks in the crust of the earth are they, not in the creek; scars and sloughs of nature formed by water, wind and frost and worn deep by time's unceasing tooth; their once bare sides reclothed with green of shrub and herb, with here and there a distorted tree to rise above the more lowly vestiture. All the more noble oaks and maples, hickories and linwoods, poplars and

[56] *Ardes herodias* L.

beeches have been stripped from these "breaks" to satisfy the man of mammon, and only underbrush and trees of second growth now meet the eye. The chat rejoices in the change, for coverts many has it now in which to hide its scolding form. The Kentucky warbler,[57] and its more modest garbed cousin the "worm eater"[58] here too find summer homes well suited to their liking, as does also the whippoorwill and towhee. When on such July days as these the hot air, moisture laden, full of humidity, doth surge and beat, these valleys and ravines often seem to me but grottoes of inferno, with little to attract, not even squirrels and marmots.

In damp places along the lower edges of these shaded ravines grows the zigzag spiderwort,[59] its lilac-blue flowers opening for but a single morn, wasting their beauty on the birds and butterflies, then closing once for all. In this form the upper portion of the stem is flexuous or bent in zigzag fashion and its handsome blossoms are in three to seven sessile umbels or clusters in the axils of the bract-like upper leaves. A taller, smoother form,[60] with straight stems and much larger deep blue flowers also frequently occurs along the roadsides and railways of this region.

[57] *Geothlypis formosa* Wilson. [58] *Helmitherus vermivorus* Gmel.
[59] *Tradescantia pilosa* Lehm. [60] *Tradescantia virginiana* L.

My friend and present "landlord," M. M., like J. M. of my June-time camp, is a good observer, a woodsman and a water lover. He told me of watching a fox squirrel and a ground-hog, rodents both, sit erect side by side on one of the slopes and eat acorns for half an hour together. Within less than two feet of one another, they held the acorns in their fore-paws, broke the hulls with their teeth and munched in harmony. A feast in the wilderness that which I would have given much to see.

For ten minutes this morning I watched at close range a green heron seeking a breakfast. It stood on a dead limb which had fallen so as to form an arch a few inches above and across a riffle in the stream. At first it alighted on the middle of the limb near the center of the riffle. Bending far over it held the end of its long bill close to the swift flowing water. Then turning its head sideways so as to better look downward it stood for several minutes as if carved from stone. Nothing to its liking came to view and after a time it walked slowly to the end of the limb close alongside some water willows and assumed the same attitude. Suddenly the bill went down and home. Up it came with a large struggling crawfish. Shaking it about until it was in the right position it swallowed it tail first. The two long front claws protruded

for a second or two, then were gulped down as a hen swallows a morsel a little big for her capacity.

It would seem that the legs and chelæ of a good lively crawfish might tickle and pinch the long gullet of a heron but if so there was no sign of the inward turmoil in the bird at hand. Again it bent over for another prolonged gaze into the water. As yet it had no inkling that a second watcher was near. Its mate, however, came flying by and spying me uttered a single squawk of alarm. The one which was fishing for "crawdads" heard and on the instant acted. Glancing quickly up and around it too saw me just behind it and with a cackle of disgust left for pastures new.

Thus do herons hunt. For hours the great blue will stand seemingly half asleep and moping, but no eye more keen for the slightest move of frog or fish. Absolutely silent, without the movement of a muscle, it awaits motion to plainly see its victim; then a bill thrust as of a transfixing dagger and the fuel of life is theirs.

Each bird, each mammal, each form of life of any kind has its own ways and times of preying upon its fellow creatures. For ages thus have they sought food, their entire bodies becoming meanwhile admirably adapted to their manner of pursuit. The long legs enabling the

heron to stand or wade at will in water of quite a depth; the long neck, drawn in while watching, ready to send the long, slender sharp pointed bill home with force at the crucial moment—these are not happen-sos, but are products of hundreds of centuries devoted solely to their way of seeking sustenance.

If the breeze which is now blowing so briskly, so blithely from the southwest would only bring with it a rain, one which would last for a day or longer, joy would take the place of despair in the soul of many a farmer hereabouts. Six inches and more of rainfall is the deficiency since April first and much of it in June, when the crops did need it most. O Jupiter Pluvius, get onto thy job! Get thy clouds massed, thy winds in action. Let the heavens leak in copious quantity. Then unto thee shall we give credit due.

"Cr-cr-cr — purr — íti — chee — cr-chk" — pshaw, who can mimic a chat? I thought to give his vocabulary but would have to be an expert in phonetic sounds and write lightning shorthand did I get the half of what he is saying to me, to his mate, or to the infinity of space, I know not which; perhaps to himself to hear himself talk. A ventriloquist of high degree, he seems now near, now far, but has not moved a foot.

"A mournful cry from the thicket here,
A scream from the fields afar;
The chirp of a summer warbler near,
Of the spring-tide song a bar;
Then rattle and rasp;
A groan, a laugh,
Till we fail to grasp
These sounds by half
That come from the throat of the ghostly chat,
An imp, if there is one, be sure of that."

About the bases of these old oaks are many flakes of bark, pieces of dead twigs, old acorn shells, dried leaves, etc., all these the talus of the trees themselves, shed or thrown off as refuse, just as we shed, in minute particles, the ends of nails, hair or skin. These cast off fragments do not indicate the decline of the trees but rather a healthy condition of growth. Much of my firewood for cooking will they furnish. The stored energy therein will I set free. Back, back to nature, from a dormant to a potential form, will the matter go, ready for new life, for the building of new cells which again will store new heat for future use. Back with the God-speed of a human who believes in life, not death; in work, not play; in the green of living things, not in the gray, the brown, the sere of old bark and leaves.

Full a score of wood ticks have I plucked from my body and cast aside in the two days past. They must thrive in numbers in the crev-

ices and crannies of these old trees, and this hot dry season suits well their mode of life. Their double quartet of legs sends a shiver up and down my spine whenever they tickle my skin.

The wood thrush, usually an evening songster, here in the wilds tunes up occasionally at midday, his clear ringing note filling the woodland with its cadence. One of the most melodious of our summer visitors and frequent in thickets and copses throughout the State, it is a shy bird and known much more commonly by note than by sight.

Soon after noon J. Pluvius, in obedience to my supplications, massed his clouds, put his winds in action, sounded his trumpets, threatened, bluffed, and passed on. Not a drop of rain did he squeeze out above this particular region. Elsewhere to the north and east he worked, as shown by a slight rise in the stream. Here, where drought severe doth reign, is where I beseeched him to send down his moisture and not on other square miles far beyond. While he was threatening I was tempting the finny tribe with grasshoppers and crawfish. But one goggle-eye and three sunnies rewarded my efforts They however are sufficient in bulk to furnish plentiful nutriment for my evening meal.

Along the eroded slopes which I pass on my return that homely weed, the mullen[61] in many

[61] *Verbascum thapsus* L.

places grows, sending up for five feet or more its coarse, stiff, woolly spikes, the yellow flowers of whose tips now gleam prettily in the evening sunshine. Thus everything, however coarse and vulgar, has a side, an organ or an angle worthy of admiration. Even the roughest of men have their soft, easily touched points, a knowledge of which and sympathy for, will often enable one to gain their confidence and friendship.

Thus the day ends. Through its hours have I sought and gained knowledge, not from man, but from the great book whose leaves are ever before me. Through them I turn and seek until I find the fact I want or some other which will serve as well.

Friday, July 7.—Up at 4:40, a half hour late. As on yesterday, my first duty is a journey to my spring, a journey that is ever exhilarating in early morn. Down the pathway from the tent to bank of stream I go, up along it to the miniature "devil's back bone," a name given locally to very narrow ridges between streams and ravines. This one is not over five feet wide, gradually ascending and grass covered, with here and there a wild raspberry bush springing from its sides. Up it the path leads for sixty yards then down its side into the ravine at the left. There the water, the overflow from the spring, ripples merrily along. From the bottom

of the basin every little pebble and grain of sand reflects a welcome. Deep I dip the bucket, clear and sparkling its contents. As I climb again to the narrow ridge the first rays of the sun are just touching the slope to the south. A wood thrush is sounding his bell-like morning greeting to the other denizens of the copse. A bob-white answers him and then a towhee. Plucking here and there a berry I reach again the level bank of stream. Along my pathway the fringed loose-strife[62] blooms, its yellow, star-like flowers now the one bit of color here amidst the green. The suckers in the shallows turn partly on their sides and show the silvery white of their under surface. The water from the spring on the opposite bank gurgles merrily down into the depths of a pool, singing ever the tidings of its coming. Slowly I walk, inhaling meanwhile great draughts of the pure morning air and rejoicing in my freedom. When I climb the slope and place the bucket on the shaded sward in front of tent I say unto myself, "A journey have I been."

A spring frog[63] has adopted my spring. Yesterday I saw him twice, and once again this morning. When I approach he leaps, kerplunk, into its depths and burrows in its bottom, roiling slightly the water of the deepest part. From a temperature of 95 degrees into one of 50 de-

[62] *Steironema ciliatum* L. [63] *Rana clamata* Daudin.

grees at a single plunge would cause a quake to run down my spine, but the frog seems used to it. However, each time he jumps he utters a little croak of protest, then—"kerplunk."

My first visitor this morn was a catocala moth or "underwing" which flew inside the tent as I was dressing and alighted on the front wall above the door. When I went out away it flew to the bole of the near-by oak. It is but one of thirty-five or more belonging to the same group which, during the next six weeks, will pass the heyday of their existence in the open woods of this region. Flat against the bark of beech, maple, oak and other trees these underwings rest in daytime. There they are invisible till they move, unless one is in especial search for them. Among them are some of the most beautiful of our night flyers. The fore wings, which overlap the others when at rest, are usually dark or sooty gray, mottled and shaded with a paler hue. The hind wings, which show only when they fly, are often very prettily variegated or cross-banded with black and crimson, black and yellow or other colors, and for this reason all are known as "underwings." The one seen this morn had the hind wings an iridescent sooty brown, edged with silvery gray.[64] How handsome are some simple colors when set in sharp contrast and arranged in graceful lines.

[64] *Catocala dejecta* Strecker.

While I eat many things when camping that my palate might reject at home, I want them from clean plates and vessels. After breakfast each morn I therefore wash my dishes of the day before. Even the skillet receives its daily dose of soap and water. This task completed, my conscience tells me that I must seek the shade of oak and bring the "journal of my happenings" up to date. Until that is done the little God of Conscience doth prick me sorely. The writing off my mind, squirrels and marmots do I seek (but seldom find), meanwhile jotting down any thought or observation which may come unto me. If, together, my notes aggregate ten pages daily, content am I; that is, the little God doth not rebel too strongly.

On the boles of the oaks and on stumps near the tent I have seen a half dozen or more of an ovate, convex, blackish-bronzed "darkling beetle"[65] about half an inch in length. A colony of them evidently came into existence on this knoll—saw here first the sunbeams, felt here first the joy of heart-throb and of mating.

A new collection have I begun this morn. Many things have I collected in the past; birds' eggs, postage stamps, butterflies, birds, grasshoppers, katydids, beetles, true bugs, plants, shells, snakes, salamanders, weed-seeds, etc., etc. This time it is the ends of marmots' tails. One

[65] *Meracantha contracta* Beauv.

have I now in my vest pocket and many more I hope to have before the season closes. Not to keep on display are they, but in time to count as trophies of the hunt. For these marmots or ground-hogs are a nuisance in old pastures and neighboring cultivated fields, burrowing here and there and throwing out great heaps of dirt over the surrounding grass; eating low many square rods of clover; destroying corn, both young stalks and in the roasting ear; in fact, at the farmer's expense, waxing fat at all seasons except the winter when they sleep away in hibernation much of that with which they enter the burrow in late autumn. At the old farm the dog and I swore vengeance on them years ago, but, nevertheless, there have they grown in numbers, for they can see and smell farther and have ears more acute than either of us, so that only by strategy or chance did we get one of them. Only a shot gun had I, good for close distances, to which they became accustomed and stayed in their burrows when I was within range. Now a rifle is mine and perhaps a few of them will once too often poke their heads above the mouths of their dens and leer when I approach. The one whose utmost caudal vertebra I have was in the clover field south of my tent and sixty yards away. At the first shot I cut the dust beneath her and caused her to hump

herself towards home. Curiosity, however, proved her undoing. At eighty yards she paused and, like Lot's wife, looked back. Kerchug, the second bullet took her just behind the ear and her final trip to the clover field had been recorded.

Just now I am seated on a point at the edge of that same field with the pioneer homestead of a marmot within six feet of my back. From it several pathways, as well worn as any made by sheep, lead down the slope. Along these the family a-hunting and a-visiting go. On my way here I took a shot at a moving youngster who was returning from a call on his grandfather. It missed him by a foot. What a rollicking sailor-like gait he assumed as the bullet whined by his head. Into a hole on the level, some forty yards below me he plunged, and I am waiting for curiosity to get the better of his caution.

The pathway down which I came to the clover field leads, for much of the way, alongside an old rail fence. This in time is replaced by one of slats and wire. Large sassafras trees, some of them a foot and more in diameter, stand along or close to the line and over them the wild grapes clamber and form many a covert for the thrashers and the catbirds. Wild cherry, hackberry, walnut, butternut, and various other trees of small size have found protection within the

angles of the old fence, and through the underbrush send aloft their tops in search of air and sunshine.

Here am I lolling away existence. Out there the great world wags on full of strenuous labor to be done. That labor, however, is for the most part of man's making. He has conjured it up during the centuries that have passed while he was being civilized. Before that process began the world was here, he was here, but the only labor he had to perform was to gather his daily food, just as the marmots are attempting to do out in the clover field before me. The world did not create for him the work. He made it for himself while trying to get as far as possible away from nature.

At one time he delved in metals, if at all, only to get spear heads and arrow points to use in killing game. A few hours each year sufficed to furnish these. Now ten million men and boys work day and night, year in, year out, at metals, making the so-called necessities and luxuries of commerce, trade and navigation. Is the world better, is man more content, now that he travels by steam and electric power, than when he went a-foot or in a dugout fashioned from the trunk of some monarch of the forest?

From the beginning, on the world has wagged, content in its daily work, increasing it not, diminishing it not, while man each day has added

new tasks for his successors to perform. Gewgaws and ornaments of many kinds, luxuries of the millionaires, coveted by the poor and adding to their daily discontent, these do the brain of man each year conceive and fashion. Toiling and sweating, working in the hot impure air and surrounded by the din and stink of great cities, men and women, girls and boys, pass the years in their production, their only reward sufficient food and shelter to keep the life blood flowing.

Yes, out there the world wags on, and I, with nature all about me, wished years ago to wag with it, to put my shoulder to the city wheel and see it turn, to burn my life's fuel that other men might prosper. Enough of that I've had. Long may, and doubtless long will, the world wag on without me. My turn at the wheel has ended. Content am I to sit in the shade and practice shooting at a marmot's head.

Practice is a good word. It is perhaps tough on the ground-hogs but fun for me. One far over on the other side of the clover patch I bowled over, but up he scrambled and away he scurried. At the head of the young one, which had been a-calling, have I shot five times. Each time has he dropped back into the burrow, apparently unharmed. A little high, a little low, a little to the right, a little to the left, the flecks of dust would show. Practice it is, but the Gods of chance will perhaps soon be with me and

the curiosity of a young marmot forever satisfied.

The Gods of chance were fickle. The den of the youngster had another opening in the side of a ditch. Out of it he went and down the drain, the crest of his back just visible as he ambled slowly away. Another one came out on the slope and again I missed. That collection of brushes from the tips of their tails will, I fear, not be difficult to count at the season's end.

Just then the farm boy came over with my mail. He took a longer shot than I and bagged his game. With my gun, too! So it is not the weapon but the personal equation which is at fault. No wonder! He says he has a rifle somewhat like mine which he has shot more than three thousand times. Practice, patience, patience, practice, the man behind the gun, as elsewhere, must ever have would he be successful.

Just at noontime J. Pluvius began to get busy. All the morning had he been preparing for an hour's work. Like a Mexican is he these summer months, often promising much for to-day or to-morrow but doing little. How the foliage of grass and tree and herb rejoiced in his labor, so long deferred. Sitting in the door of my tent I cooked my dinner, using an old stove top on which to place my fire so that it would not spread into my shelter. For an hour after dinner I fished in the pool within fifty yards of the

camp and caught five sunfish and a river chub. One of the former weighed nearly half a pound and had all the colors of the rainbow reflected from his sides. Far more gorgeous was he than the one that outshone Joseph on the day that I arrived; in fact the most brilliant *megalotis*[66] I had ever seen. A large striped grasshopper had tempted him, some pieces of mussels the others. M. and his son came over while I was busy and proposed that we go squirrel hunting, as "the woods were full of them." The old boat being half full of water I utilized it as a live-box and placed therein my catch. With the guns we started and tramped three hours, seeing but one squirrel and not getting a shot at it. Thus often are men's boasts regarding the prevalence of game belied.

The evening sultry and the mosquitoes, a long-legged, slender bodied form with little or no hum, for the first time made their presence known. It is well thus, for their bites can I stand better than their song. With my netting in place worry about them was at an end and soon the God of slumber, most welcome of all that wait upon us, enthralled my consciousness.

Saturday, July 8.—This morning I find that the large black ants so common about my camping place have outwitted me. That they have

[66] The specific name of the long-eared sunfish, from two Greek words meaning "big" and "ear."

long noses and are fond of blackberry pie have I also proven. The plan of suspending the basket of provisions from the ridge-pole was successful only as long as it contained no pie. On yesterday, however, the good farm wife presented me, fresh from the oven, a large blackberry pie. Now I have an especial hankering for such pie (even if at times its crust is somewhat like that of sheet-iron in texture) and do not care to share it with ants. In other words, in the ants' opinion I am a "tight wad" with my blackberry pies. After eating a generous portion I wrapped the remainder in paper and placed it in the basket. Some old scout among the ants got a whiff of its juice and following his nose up the end pole, along the ridge-pole and down the cord and the handle of the basket, found that pie. Hustling immediately homeward, he invited all his brothers and sisters, aunts and cousins to share in his discovery. When I arose this morn and sought the basket for provisions there they were by scores, on the pie alone and half drunk on its juices. They have equalled me in cunning and hereafter I shall have to eat my blackberry pies at a single sitting.

This place might well be named "Camp Bug" for not only are ants and wood ticks much more numerous than about my previous tenting places but yellow jackets and bald hornets are also

plentiful. Several of the former visit me at every meal, and alight on my bananas, sip my orange juice and invade my sugar can. One of them this morn was too inquisitive and fell into my pan of hot water. Though he possessed a hot reception for any one who crossed his wishes, he got a hotter one there—a taste of hades before reaching its confines. The hornets have not bothered me much as yet, though at breakfast when I removed the cover I found one in my cup of butter. Several of them are frequently seen on the base of the oak tree by the side of my tent. They are perhaps gathering material for their paper nests, though they usually secure it from the sides of old houses or old posts or rails.

Chiggers also have gotten busy, and following the advice of M., I last evening gave them a dose of coal-oil well rubbed in. An excellent remedy for chiggers is it but not o'er pleasing to my sense of smell.

On going down to the boat to get my sunfish for breakfast I could nowhere see them and thought they had escaped. However, they were huddled beneath an inverted scoop used for bailing the boat. True to their instinct of keeping out of sight of kingfisher and other enemy, they had thus hidden beneath the only available shelter.

The alarm note of the brown thrasher sounds

like "tchk—tchk," repeated every two or three seconds. A pair of them came flying into the bushes, where now I rest ambushed for ground-hogs, and soon spying me kept up this chuckling note for several minutes. A wood pewee in his flight also headed straight for me, but when ten feet away saw me and veering suddenly to the right alighted on a shrub, then, with head feathers raised in affright or anger, peered at me and began to utter his plaintive cry.

The marmots are wary this morn, evidently not wishing to serve as targets even for a bad marksman. Two long shots have I had and as usual missed. The young one which on yesterday served as the principal target has not yet appeared. Two are now in sight, but far across the meadow. They feed an instant or two, then sit erect and gaze in all directions, the world-fear ever in their minds. In their dens in the thick clumps of blackberry bushes back of me I can occasionally hear them whining and barking like young puppies.

Across my tent the shadows fall and o'er my soul they gambol.

Stew-pan in hand, I saunter slowly up the slope behind the tent, picking berries as I go. The raspberries are going out, the black ones coming in. Why that name "raspberry?" There is nothing rasp- or file-like about it unless it be the rough outside or the hooked prickles

of its stem. The fruit is a compound berry; that is, one composed of many small juicy berries or drupes. Unlike those of the blackberry, these come off from the convex receptacle together when ripe, thus giving the fruit a shape somewhat like that of a thimble. More pleasing far than strawberries are they to my palate. Had I been old Dr. Boteler, to the raspberry instead of the strawberry would I have inscribed the now world famous phrase: "Doubtless God could have made a better berry but God doubtless never did."

Many of the raspberries are dried up on the stems but in the clumps beneath the foliage of hazel and wild grape and in the shade far down in the midst of the canes themselves are yet to be found fine large juicy ones in abundance. I learned to search for these years ago, and learning have remembered.

> "The strawberry grows underneath the nettle,
> And wholesome berries thrive and ripen best
> Neighbor'd by fruit of baser quality."

Everything good is not found upon the surface, but the best often far beneath, hidden from the eye of the novice and that of shallow seeker. Stir deep the subsoil, O ye thinker, for in its depths may be the germ of many a gem of thought which by thy stirring will reach the light of day.

While returning to camp I saw a phase of the great struggle new to my senses and to science, as far as known to me. In my pathway were two rolling, wrestling objects, struggling, not for fame as in a Greco-Roman match of old, but one for life, the other for life prolonging nutriment. The former was a large thick bodied "June-bug" or May-beetle,[67] the latter a slender bodied but large sized rove beetle.[68] It had the June-bug by the soft tissues of the throat and was worrying him much as a fox terrier can worry a raccoon or marmot on which it cannot get sufficient hold to strangle. Back and forth, over and over they struggled, the May-beetle ever trying to escape by pushing with its legs at the body of its foe; the latter grasping as well as possible with jaws and legs and in its excitement waving its flexible abdomen rapidly up and down. For full ten minutes I watched them, then, time more precious, I parted them with a twig, the June-bug on buzzing wing escaping in an instant, the rove beetle hiding beneath a cover of dead leaves. Predaceous as well as a scavenger, then this Staphylinid, and on the parent of the white grub. Beneficial, therefore, we hail thee! To whom? To man the omnivorous—man the self-styled "highest of all"—man the prince of parasites on this old globe where bird and beetle, beast and reptile

[67] *Lachnosterna rugosa* Melsh. [68] *Listotrophus cingulatus* Grav.

fight here and everywhere, now and at all times, the struggle in which one must die that the other may live.

Back by my set line I take my way and note the cork is under. Up I bring a yellow catfish, not large but yet sufficient to furnish meat that I may live. Baiting anew with a grasshopper I again throw out and in a minute have another sunfish, brother to the big one I caught on yester-eve. Then I climb the bank, with fish and fruit, the main ingredients of my dinner, in hand. Thus doth nature furnish unto him who will to-day but gather, just as she did to the cave man of old, sufficient for his needs.

Along the pathway of the slope which I trod this morn a common plant of plantain caught my eye, was plucked and said unto me "wayside weeds"—a theme ever fruitful, ever interesting. A homely weed this plantain with its broad ovate, strongly ribbed root leaves and its long slender spikes springing from between their bases. Without showy flowers to attract insects, each of the spikes bears in time fifty or more closely appressed seed pods, each containing eight to eighteen seeds. Hardy, tough and difficult to eradicate, its many seeds give it more than an average chance in the struggle for life. A social weed it is, delighting to follow in the footsteps of man. By the Indians it was known as the "white man's foot" and is the

plant referred to by Longfellow when in speaking of the English settlers in Hiawatha he says:

> "Wheresoe'er they tread, beneath them
> Springs a flower unknown among us,
> Springs the white man's foot in blossom."

The plantain delights in a compact clayey soil and with the knot-grass combats most fiercely for supremacy along the sides of the narrow foot paths in unkempt country dooryards. Along the cow-paths of old pastures it is also found in company with the prickly sida and the wire-grass, all three fighting their common enemy, the blue-grass, which cannot withstand as they the constant tread of foot or hoof. Holmes also refers to the social habit of the plantain in the lines:

> "Knot-grass, plantain—all the social weeds,
> Man's mute companions, following where he leads."

Among other plants which have followed man in his march across the continent are the dog-fennel, burdock and jimson, which in barn yards and the waste places of small towns flourish and fight. All three are homely, ill smelling and uncouth, springing from soil enriched by kine or swine in places wholly uncared for and unfrequented by man. A weed is but a plant whose true use is as yet unknown. Each has its chosen habitat where best it flourishes and perpetuates its kind. All serve to hide the scars, the rough

and bare places on the face of mother earth—to cover them with a sheet of green whose vigorous growth but goes to prove how luxuriantly more useful plants would flourish if carefully tended by the hand of man.

In company with E. G., an enthusiastic young botanist from the near-by town, I spent an hour this afternoon in a marsh of a few acres a half mile up stream. On the way I fished in various places but without results, then setting my line in a deep hole, we went on to the marsh of whose semi-aquatic plants E. G. is making an especial study. The sun was beating down with unwonted vigor and as the plants were all old friends of mine, I suspect E. was somewhat disappointed at my lack of enthusiasm. After a time he went up the ridge on a search for other plants and I back to my old cane pole to be a boy again.

The bait was gone and I felt big fish were there. Putting on a large grasshopper I sat down and waited. For twenty minutes there was not a nibble, then suddenly my cork bobbed under and out I pulled the biggest goggle-eye I had caught this season. How I exulted and, fish in hand, hurried up the bank to get the empty bucket which we had left by the side of the pathway. Soon another of the same size was hooked, then a large catfish and a long-eared sunny. Luck was with me but my bait

was gone. Searching the top of the bank, up and down stream for a dozen rods, I finally caught two large striped grasshoppers. In five minutes another strike was made. The victim struggled so hard I thought I had a bass, but when brought to land it was the grandfather of goggle-eyes—the largest one I had ever caught or ever seen. A full pound and a half it weighed. I had come into my own. I was a boy of boys. E. meanwhile had returned and exulted with me. Our meat for both supper and breakfast was assured. Happy, we wended our way back to camp, where the evening hour was spent in discussing the range and variation of some of our mutual friends, the plants.

Sunday, July 9.—With lunch, rifle and plant collecting outfit, the three of us, M. M., E. G., and myself, at eight o'clock started down the left side of the creek to spend the day in nature's haunts. Skirting the cultivated fields and passing through the woodlands we kept both eyes and ears open for whatever might be of interest to any one of us.

The first thing out of the ordinary was a specimen of the hispid green-brier[69] bearing the largest leaves we had ever seen on such a plant. Gray gives the size of the leaves as three to five inches in length. On one taken by me in Marion

[69] *Smilax hispida* Muhl.

County they were six and a half inches long by five and three-quarter inches wide. Two of the leaves from the plant seen to-day were measured after returning and were found to be ten inches long and nine and a half inches in width across the middle, thus far outstripping all the records. The leaves of this particular species are ovate, seven-nerved and green on both sides, while the stems are, near the base, beset with many long and weak, black, bristly prickles. It climbs high over the smaller trees, often forming a tangled covert in their tops where birds of many kinds find a safe retreat from down swooping hawks by day and a secure resting place by night.

Seven species of these green-briers are listed from the State, two of which are annuals and unarmed; the others perennial with woody stems, bearing few or many prickles. The leaves of some of them, especially of the most common species[70] usually known as "catbrier," remain green sometimes until midwinter. Then when the sky is leaden and all nature drear they often form handsome festoons over the tops of tall and otherwise leafless shrubs. The blue-black berries are also very attractive at that season and are eaten by birds when other food is scarce, the indigestible cherry-red seeds thus being scattered far and wide.

[70] *Smilax rotundifolia* L.

The hickory elm,[71] whose wood is among the toughest of our native trees, grows in numbers on these slopes, reaching a height of sixty to ninety feet and a trunk diameter of three to four feet. From our other elms it is known by the oblong obovate leaves, three to five inches in length and smooth above, and by the small branches being corky-winged, thus giving the tree a shaggy appearance and also one of its common names, the "cork elm." Famous for axles and hubs, it is also used extensively for bridge timbers, sills, railway ties, etc. There is little doubt but that wood from this kind of elm was used in making the hubs and axles of the Deacon's "wonderful one-hoss shay."

When in passing along a fence row he looked up and discovered a bee-tree, E. was excited and happy. The busy little workers were flying in and out of a hole near the top by scores. It was a maple and M., who delights in climbing and bee-hunting, said he would come back, nail on a few slats and by cutting a large hole get the honey. Marking the tree with E.'s initials and an X, on we went in search of other trophies.

Three miles down stream we came to some rugged bluffs of sandstone, from the base of which issues a large spring of clear pure water. Here we ate out lunches, discussing meanwhile

[71] *Ulmus racemosa* Thomas.

many subjects, botanical, zoölogical and religious. On the crest of one of these cliffs occur great clumps of the interrupted fern,[72] whose fertile pinnae or small spore-bearing divisions of the frond are near its center. According to botanies this fern grows in "swamps and moist soil," but nevertheless here it was o'erhanging the brinks of the highest of these sandstone bluffs. Thus doth nature often controvert the surface observations of man, as recorded in his books.

On the sides and ledges of these cliffs grows also, but sparingly, the handsome shining club-moss,[73] whose lax or spreading stems fork near the top and bear rows of leaves which are alternately longer and shorter. Dark green in color, with a spore case in the axil of each upper leaf, it clings to the side of the almost bare sandstone, a lowly but most attractive member of our local flora.

On the level ground above the cliffs E. had at one time taken the cream colored avens,[74] a member of the rose family, which has not before been recorded from the State. Thither we went in search of it and were in time successful. It closely resembles the common white avens[75] but the petals are smaller and cream yellow in hue and the stipules of the leaves much larger.

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[72] *Osmunda claytoniana* L. [73] *Lycopodium lucidulum* Michx.
[74] *Geum flavum* Porter. [75] *Geum canadense* Jacq.

This avens was the only new acquaintance I made among the plants to-day. Just now, however, there is a dearth of flowers. The wild roses are past their prime, and too soon is it for the jewel-weeds and the bell-flower, though single specimens of both were seen in blossom. An interim it is between the flowers of midsummer and those of early autumn; an almost flowerless gap of a fortnight or more. The yarrow, the wild carrot, the poison hemlock, the prunella or heal-all, which takes no rest in blossoming from May unto October, the milkweeds and Indian hemp, a few speedwells and vervains make up the list we have seen to-day. The lobelias and cardinal flower, the ironweeds, jo-pye-weed, sunflowers, darkey-heads, early golden-rods, marigolds and sneezeweeds, which will furnish the brilliant hues of the first weeks of August, are all, as yet, lacking and poverty marks the floral offerings of these July days.

Another barren interval there is in the last ten days of May, but not so marked as that of now. The harbingers of spring, the red maple, snow trillium, skunk cabbage, liverworts, whitlow grass, pepper and salt, spring beauty, etc., have then long been gone. These are closely followed by the second offering of spring, which is much more generous, including such well known forms as the marsh marigold, celandine poppy, blue violet, adder's tongue, the trilliums,

nodding, sessile and recurved, dutchman's breeches, wild geraniums, hawthornes, dogwoods, crab-apple and perhaps a hundred others. By mid-May these are mostly gone, and only a straggling few, as the cinquefoil, sweet william, blackberry, stone crop, black haw, wild grape, etc., fill in the gap between the flood tides of spring and those of early summer. To the latter belong the clovers, trefoils, wild roses, thistles, white-top, elder, mullen, skullcaps, rose-mallows, Jersey tea and a double score of others which make of June a month of floral beauty.

Thus do plants measure the lapse of time, divide the blossoming season of the year, whose first and final offerings are snow trillium and witch hazel, into periods or tides, so that the botanist of experience, were he set down in nature's garden with other calendar absent, could almost tell the day of the year by her posies present.

Slowly we sauntered homeward, adding here and there some specimen of interest. Among them were the largest leaves and corm of the Indian turnip I had ever seen. Up the immediate valley of the creek we took our way, following its curves and stretches. At one place some so-called "sulphur springs" well up through a fissure in a stiff blue clay on the very brink of the stream itself and add their purer waters to its current. These springs furnish an

excuse for a local resort where many people flock these summer days to fish and otherwise amuse themselves. Needless to say that the only mineral in the water is a carbonate of iron, so that "chalybeate" rather than "sulphur" should the springs be called.

Reaching camp at five o'clock, we soon had supper ready, then went up to the deep pool to try our luck for catfish. Long I sat and waited, then a nibble, a swallow, a jerk, a lunge and out came a pound and a half bull head, squirming and writhing to the muddy bank. Soon a smaller one he had to keep him company, but no others nibbled. Back in the darkness we felt our way to camp. There M. and E. left me alone to review in memory a day well spent along the valley and the breaks of old Raccoon.

Monday, July 10.—The day was opened by a pair of wood thrushes striving to outdo themselves in calls and counter challenges. Breakfast over, I seek the shade of oak tree, there to learn what, if anything, the genii have to offer.

"And out of my soul a thought is born." Let that be my text this morn. A true author is a creator. In his brain cells, womb of his soul, something is created out of nothing. There is begotten, not out of the fabric or remnants of other thoughts, but of itself, independent of all things, an idea. It may spring into life, the

work of a second. It may take weeks, even years, in its inception. But when ripe there is immediate parturition. It fares forth naked as a wall of new born granite. A moment before birth it was only potential energy. A moment after, when jotted down in black and white, it is symbolized energy, something the minds of future ages may grasp and, if worthy, use.

Passing strange it is, this change of energy into lasting symbols. Nowhere else in the universe doth it take place. Only in the brain cells of a human is it possible. This thing of creating something from nothing, of conceiving and giving birth to an original idea, more than all else combined, places man next to the God of Nature, ruler of that infinite system of planets which move on and on through time unceasing, within a space so vast that the mind of man can never comprehend its bounds.

We should write out our thoughts, our brain fancies, just as they are born, natural, naked, unadorned, instead of trying to imitate some other human whose ideas were conceived and crystallized in an environment far different from our own. One can never become a master by imitating forever a master. One cannot be a leader and a disciple, a planet and a satellite of the first order, at the same time. We should look to and beyond our masters, strive for something better than even they have attained, orig-

inate a style of which they never thought and perform deeds which they never dared to plan and do. In that manner only can we ourselves become masters or rather leaders, not followers, in the great world about us. Some master mind in Paris thinks out a garment or originates an idea for a hat, different from all others, makes it or has it made, wears it or puts it on the person of some notable and sets thus the fashion for the world. If a writer would become a master of style, a leader in literature, he must think something *original,* have a "brain fancy" which no one else has had, then set it before the world in its proper light.

Most men write of other men and women, their deeds, their love affairs, their inventions, their markets, their wars, their petty quarrels and, if their subjects are notable enough, their marriages and deaths. I would sweep man aside from the horizon and write only of the great round earth and the objects other than man and his creations which thereon exist. Following no master of literature, no master of anything, I strive to write in simple language of the things I see and the deeds they do.

We, each of us, have queer likes and dislikes, queer tastes and distastes, not inbred but mostly acquired. For example, were I to go to England to-day I would not care half as much to see Burns' cottage or Shakespeare's Stratford as

I would the dingle where George Borrow met Isopel Berners, or the stream and valley, wild and romantic, where old Izaak Walton first fished and gained the knowledge of the finny tribe which he has incorporated so entertainingly in his classic. We should write more of the old forests, the ravines, the rivers, the rocky glens, the mountains and the lakes, conceived and evolved by the God of Nature; less of the palaces, the cathedrals, the manors, the churches, the bridges and the monuments, thought out and builded by the brain and hand of man.

Gathering a quart of luscious ripe blackberries I pick them over and place them on my furnace fire to stew. Instead of stones on the sides of my furnace to get loose and roll down at intervals, I have my usual cook stove, the three wires already mentioned, placed across it like the bars in a grate. Getting my smaller catfish from the boat I skin it, then fry it in sizzling hot grease. J. Pluvius meanwhile has been preparing for business, and just as my dinner is ready begins to work. Seated within the door of my tent I eat fish and berries in his honor. Other things I also have, but these two offerings from nature are the ones I most do relish.

For two hours the rain continued. I read for awhile then fixed up some set lines and when it ceased tried again the deep pool where I caught the large goggle-eyes and catfish. The

fishing was good, as it ever is, the catching poor, only four bites in three hours and one small sized catfish hooked. Leaving there a throw line with three hooks attached and also three set poles at other pools, all baited with mussels, I thus have a chance, six chances in fact, for fish.

Ah, this element of chance, how much it adds to the hope and happiness of us mortals here below. It gives to the fisherman hope, to the trapper hope, to the gold seeker hope, to the hunter hope—hope to all others who go out to hunt for something on the face of mother earth. And hunters are we all from the day we first toddle out to hunt dandelions or sea shells to the day we die, hunting still perchance for health or a place where we may prolong our lives. In all our hunting hope is the lodestar which leads us on, hope and the elements of chance—of luck.

The main attraction which fishing ever has for all people, old and young, is its element of uncertainty. 'Tis an affair of luck. If I have a line set with three hooks on it I can hope over night that in the morning a big catfish will be on each hook. I have three chances where without the line I would have none. It is this expectation that adds joy to the fisherman's life, to the hunter's and trapper's privations. As a boy I trapped and when I went to bed at night the last thing of which I thought were the chances I had, six, or eleven, or twenty-one, ac-

cording to the number of traps I had out; some better than others because the traps were set in better places. In the morning I would go forth with high hopes which were not fully blasted till the last trap was in sight. We hope every minute to get a strike and catch a four-pound bass, to get a glimpse of a deer or a fox squirrel through an opening in the wood, to find a rich lead or a big pocket of gold, to devise some patent or happen onto something which will "make our fortune." Too many, far too many, of us go through life hoping ever and doing not. The two should always be combined because only by *doing* can our hopes be realized—doing the little things at hand, the duties faithfully which to-day seem onerous. He who hopes and toils not spends his days "in letting buckets into empty wells and growing old in drawing nothing up," but he who hopes and meanwhile toils doth ever bring a bucket brimful to the top, a bucket of content, of daily happiness; for

> "Joy's soul lies in the doing,
> And the rapture of pursuing
> Is the prize."

Tuesday, July 11.—Up at 4:45. The morning clear and crisp and cool, the blue-grass lush with moisture from the rain of yesterday. Down to the three poles set close to camp I go, down with expectation in my soul. From the high

bank I can see that two have had fish on them for the cork of one is under and the line of the other is close into shore. Pulling up the former I brought out a squirming, grunting catfish, the hook nearly to the bottom of its anatomy. On the other is a large river chub, the Kentucky chub of queer old Rafinesque. He had taken the bait of mussel and then run into shallow water close to shore to keep some night-prowling bass from taking him. Leaving him on the hook I threw it far over into deep water and left him there, thus having a chance for a day-roving bass and hoping that one would come along and take both chub and hook. Thus were the elements of chance well taken, the result being two fish on three hooks. Throw out a line, O reader, and leave it overnight.

While eating breakfast I noted that the underwing moth, of which I wrote a day or two ago, was still hovering about the base of the oak tree and was at intervals being chased here and there by a bald hornet. A close examination showed that I had been wrong in my first conclusion, as the hornets are not gathering paper making material but oak sap. Over an area of a few square inches just above the ground the sap is slowly oozing forth and the hornets are tarrying long at the bowl when they should be busy at the real duties of life. Three or four of them may there be seen at all hours of the day,

and with them are usually a few green flies and big black ants. The moth wishes also a place at the festal board but her company is not relished by the hornets. She flutters about and alights a foot away. Then in awkward hops she moves over or up to a point where she can reach with her proboscis the liquid food she seeks. Immediately one or two of the hornets buzz after her, chasing her for a few feet then back again to their sap sipping. It is a country bar-room, a blind tiger, a loafing place for bugs. As long as the sap exudes there will both hornets and underwing congregate, the latter taking a chance at getting a drink when the hornets are temporarily absent.

The oak beneath which I am seated as I write is the one farthest from my tent. It is shorter with more rounded top than the other two, and has on one side a rift or long scar where once struck by lightning. The top was perhaps taken out by the same bolt. While here I have discovered that dry white oak bark is a most excellent fuel and serves also well for kindling. On the tree next to the tent it flakes off easily in long thin pieces, somewhat as does that of the shell-bark hickory. I pull it off in small pieces each day, and in so doing I am a barber of nature and am trimming the hair of the tree. It is the dead outer portion and its removal does no harm. The three oaks are the rulers of this

open glade. Far above everything else on the slope they tower, as though the earth had sent them forth as tentacles to try and touch the skies. Thus do trees stretch heavenward seeking ever the light of sun, the moisture which his winds do bring.

So far away from human habitation am I that I can just make out the vaunting cry of a cock, the cackle of his mate. The co-o-ing of the dove, the cackle of the flicker and the crooning of the cuckoo here take the place of the sounds made by the barnyard fowls and are more congenial to my ear; yet the cackle of hen coming from a distance through the morning air is so subdued and softened as to be welcome when other sound is absent.

The chances which I took with the three-hook set-line yielded hope and nothing more. Even that well repaid me for the setting. Catfish did hook themselves thereto, how many I know not, for they wound it around a submerged log and I had to break the line and leave them there impaled. So with only the memory of hope as my reward I returned along the stream, stopping here and there to listen to the music of its waters as they babbled merrily over the boulders. Then climbing the slope above the spring I once more picked a quart of blackberries and raspberries, as I wish to mix their tangs.

What is there in this crude undistilled oaken sap so attractive to the palate of some insects? When I got back to camp I was surprised to find that a large click beetle,[76] black with red head and thorax, and also a wood-nymph butterfly had joined the ranks of the boozers and were busy at the sap. Getting a cyanide bottle I consigned the click beetle to its depths, then parting the grass roots just below the visible insects found there a colony of hidden ones. Among them were beetles of three families, viz.; three kinds of true sap-feeders,[77] two rove beetles and an "antelope beetle[78]." There may have been others, but the bald hornets returned to the sap and I at once retreated therefrom. Long ago I learned to respect the higher privileges of bald hornets and bumble-bees. When you are in their way they always greet you with their tail-end first and not with the hearty welcome of a friendly hand-shake.

When I came to this camp I forgot my comb. Only my fingers have I had, the comb of nature, first used by dusky maiden monkeys in the æons past when they paused to arrange their locks before the mirrors of the brooklets' pools. My hair is short and therefore as yet not too unkempt. Each night, however, I search my scalp for wood ticks, which are blood-suckers, not sap-sippers.

[76] *Ludius attenuatus* Say. [77] *Nitidulidae.*
[78] *Dorcus parallelus* Say.

The crust of earth each day I comb for facts worth noting down. Not always do I find them. In the forenoons I write most, the afternoons forming the true margins of my camping days. The little things about me are those which most I seek; if need be the comings and goings, the doings and lovings of the most despised of earth's lowly creatures. For facts regarding them will serve me well "to point a moral or adorn a tale." At times, however, I hesitate not to grapple with the music of the spheres, for the thought of human is untrammeled and the meshes of his net of cerebral cells may embrace the universe.

The hours of my marmot seeking in this clover patch must I change. They have gauged them well and not a hairy muzzle have I seen this morn. But too soon have I written this. Even as I make the period I look up and far over see one, the clover leaves a-gorging. Taking careful aim I let Susannah rumble and the energy in another marmot's body has gone forth to take its place in the waste basket of all space above. Unseeable, unhearable, untastable, impalpable, a something we wot not of—this thing of animal energy—this thing which a rifle bullet changes in a hundredth of a second from the flame of life in the body of a living marmot to the coldness of death in a carcass of matter. With us for a little time it lingers, then, tiring

of the habitation in which it abides, departs therefrom—never to return.

From along my pathway as I went up stream this sultry July afternoon there flitted three kinds of oblong beetles, each from one-half to three-fourths of an inch in length. Tiger beetles they are called and armed with stout jaws, and the sharpest of beetle eyes and furnished with long and slender legs. Of the 17 species which are known from the State, these three are perhaps most common and have the widest range. One was garbed in brightest green[79] with three small white spots on each of his outer wings; the second in dull purplish brown with here and there a tiny speck of glittering bronze;[80] the third brownish bronze with dull white zigzag bars along the margins of his outer wings.[81] Sand loving beetles they mostly are, found frequently along the borders of streams and lakes; but these three occurring everywhere on bare stretches and especially along the narrow cow-paths of our woodland pastures. Here they lie in wait, tiger fashion, for any crawling thing in the insect line which crosses the pathway and suits their fancy. Upon it they pounce, the strong jaws soon finding their way to the blood and soft tissues of its vital parts. Their young or larvæ are more bloodthirsty even than

[79] *Cicindela sexguttata* Fab. [80] *Cicindela punctulata* Oliv.
[81] *Cicindela vulgaris* Say.

the parents. They dwell in little pits or burrows in the sandy pathways, their heads resting just at the mouth of the pit with jaws spread apart like those of a steel trap—waiting, ever waiting for any crawling tidbit which may come along and touch the trigger. Voracious and blood-thirsty, carnivorous and perhaps even cannibals, they and their kind serve well their purpose in the great scheme of nature by helping to keep within bounds many an insect which otherwise would devastate the harvest fields of man.

Wednesday, July 12.—As I step forth from my tent this morn the sun is just arising. I cannot look it in the face for its halo is too great. But one of countless myriads of living things am I which owe to it the highest allegiance, for without it no form of plant or animal life could be. If it gives me life, power to grow, power to act, power to reason and to think, why should not I at times do unto it the homage, poor though it may be, which my inmost soul can express. Why should not I, as did the Toltecs and Incas of old, bow to it the knee in most reverent worship. Even the day is its creature, and when below the western horizon it disappears the earth despairs and over her face draws a curtain of darkness. "What a fine day!" we exclaim, when the sun's rays fall unimpeded and glorify us all. "What a dull, drear day!" when

they are shut from sight by the clouds they have engendered. All weather, all measure of time, all energy, all life, all work of man or other lowly creatures here on earth, all of everything which is, has been, or will be, is from the beginning to the end at thy mercy and upon thee dependent, O my sun!

"Once again thou flamest heavenward,
Once again we see thee rise,
Thee the God-like, thee the changeless,
In thine ever changing skies."

At 7:30 I started down stream for a day's fishing over territory which I had never fished before. By noon a dozen goggle-eyes and as many sunfish were on my string and I paused for an hour or more by the side of a crystal spring to eat my lunch and indulge in revery.

A buzzard, silent of voice but keen of eye and keener of scent, soars and flaps, turns and rises above the trees, his curiosity perhaps aroused by my half recumbent form. Finally he alights on the top of a dead sycamore and gazes down at me. Emblem of death is he and perhaps sniffing the air this very second to see if my decay has begun. Meanwhile mosquitoes become more numerous than I have seen them for many a day, flocking about me with exasperating drone. Nine have I sent to a permanent mosquito heaven, where appetite for human gore is never known, yet another and another come

to take their chances of entering the portals of the great unknown. Why is a mosquito? Does the service of the "wigglers" or larvae as scavengers offset the worry and nagging which they give to humans when they hum their little bugle call of an advancing charge?

The buzzard has faced about and gazes at me more intently. He may have to wait a long time to pick my bones. As far as I can see he is alone, a solitary black image whose one idea is carrion and death. For minutes at a time he sits and preens himself, at intervals stretching out his neck and gazing down at me; then sitting motionless, suberect, with head turned slightly to one side, never moving from the topmost dead branch of tree where he has his aery. At last he sits more erect and gazes around, then flaps his wings and rises aloft to dizzy heights. In far widening circles he soars, his wings seemingly scarcely in motion, yet with a power of cleaving the air possessed by none other of our birds of prey. For fifty minutes he sat and gazed at me, and I at intervals at him, yet but little more, one of the other, do we know. Only akin are we in that we both eat flesh, once grass, to-morrow new matter for some other form of life. So that he does not eat me nor I him, in our flesh-eating adventures, all is well between us.

Glancing again upward I note that a new

form of life sits on the very inch just vacated by the buzzard. Red, white and black his colors are, and he too is changing flesh, once grass, into living potent energy. A red-headed woodpecker is he, gathering his dinner not by drilling into the dead wood at his feet, but by using the highest branch as a lookout and diving therefrom in all directions after flying insects. He "eats 'em alive," catches them on the wing, swallows them as he turns, then backward flies to the selfsame spot, the uppermost one of the old tree. Three times has he sallied forth while I have written and I can see him turn his head and gaze in all directions, his keen eye allowing nothing possessing nutriment to pass by.

In a century from now the bills of his descendents will be broader, their eyes keener, their throats wider, and they will be part swallow, part woodpecker, creatures better adapted to the life they have adopted. For he is slowly changing from a simon-pure woodpecker, where the struggle for life grows ever more bitter as the forests grow fewer, into a cleaver of the air, a swallower on the wing, a contortionist who can rise and fall, twist and turn in rapid flight after his oft-times elusive prey. The buzzard, sluggish of wing and slow of thought, will remain a buzzard still, but my friend the red-head, ever alert, will become modified in muscle and in brain cell and will develop into a higher,

more potent scavenger of the air; into a bird who has proven himself a worthy victor in the great struggle by adapting himself to changing conditions and working out a new method of gaining a livelihood.

He is still there, still gazing and diving, but now he flits to another point of vantage, another tree-top whose tip is dead. From it I see him dart out one hundred fifty feet, then back again, his quest successful; a new bug added to his collection, not because it will look well on a pin, but because it tastes well and will furnish new energy for to-morrow's work. I look again and he is back to the aery where the buzzard sat. Methinks he is like the fisherman who changes from one pool to another then back again, as his luck varies. But wherever he is, his keen eye searches the air in all directions and a dinner surely will he have in time. Long may he live and prosper! I only wish that he would make the top of my head a temporary aery and from there prey upon the horde of blood-sucking vampires which are trying to empty my capillaries as I write.

Moving on down stream a marmot or a squirrel, so quick was it I could not tell which, dodged behind a shelving bank and was lost to view. It had just quenched its thirst when I advanced within the limits of its vision. Soon a black-snake, blue-black, shining and glossy, glided

along the bank, water bound. Several times on reaching the margin of a pool I would hear the "plank—plunk" of a frog as it rose in air and dived deep close to the protecting shore. In one place bits of grass and rushes, green and succulent, floating upon the water betokened the near presence of another mammal. Soon I espied a brown bunch of fur on a little ledge just at the water's edge. It was a young muskrat which was furtively eyeing me as I approached. On stepping forward to get a better view he started into the water, but when I paused he waited, then half curved himself up against the bank so as not to attract attention. His small black beady eyes centered themselves upon me as I waited for him to renew his eating. After ten minutes he was still motionless, so I stepped forward. Then with a quick dive and a flirt of the tail he was hidden beneath the surface of the water close in shore.

On I went, trying every promising pool, until at five o'clock I reached a bridge four miles from camp. Here a buggy was waiting for me and, happy with my catch of thirty or more which filled my bucket to the brim, I was driven to the old farm house, there to pass the night and exchange fresh fish for fried chicken and other "civilized" foods.

Thursday, July 13.—At seven o'clock this morning I started back to camp on foot, taking as I always like to do the hypotenuse or shortest cut. This led me across corn-fields, clover-fields, stubble-fields and woodland pastures. At the foot of a slope in one of the latter I arrived just in time to witness a tragedy of nature and there as a spectator I spent half an hour or more. Three actors took part therein and the scene was laid about the base of a great white oak, the lobes of whose roots above ground had large cavernous places between them. Across one of these spaces a medium sized gray spider had stretched a tightly woven web and here was the theater and the stage.

As I stepped alongside the tree I happened to catch sight of the villain in the tragedy—a slender-bodied black wasp, with broad black wings and yellow antennae. It was rushing back and forth in an excited manner across the upper surface of the close woven web. Presently it dodged beneath it and out came the spider and rushed across the top of the web with the wasp in close pursuit. The spider dived through a hole in the web but the wasp ran to the far edge and again beneath it. Out on top once more came the owner and after her the wasp. Back and forth, here and there, in and out of corners, over and under the surface they went for minutes, one fleeing for life, the other pursuing for food for

its future offspring. The spider stayed close to the web and was evidently trusting that the legs of the wasp would become entangled in an open mesh or hole and so handicap it that it would become prey rather than pursuer. But the wasp was wary and dodged all openings too small to pass readily through. At the same time it seemed to become more and more angry, buzzing and darting every instant at the spider yet never grappling with her for fear that in the struggle its legs would become enmeshed in the filmy gossamer.

At last seemingly tiring, it moved to one side as if leaving. The spider at once lost her cunning and made the fatal mistake of leaving the web and starting up the bole of the oak, perhaps to some covert beneath a loose piece of bark. Quick as a flash the wasp, free from fear of web, was after her. Grabbing her with both jaws and legs they fell to earth, where the struggle was soon over, the wasp injecting a dose of preserving yet paralyzing fluid within her body. For a minute or two after its victory the wasp ran about as if seeking the best way to bear away its prey, then seizing it with its legs essayed to rise and fly. The spider was too bulky, so dropping it and seizing it again with jaws, the wasp began to crawl backwards and upwards, first onto a piece of bark, from that to the leaf of an herb, then up the stem of the latter to the

bole of oak and up this as fast as it could move and drag its heavy burden.

Meanwhile actor number three appeared upon the scene in the form of a slender brown ichneumon fly about one-half the size of the wasp. While the two were on the ground engaged in the death struggle it darted near, and resting on a leaf gazed down at them. When the wasp started to drag away the spider the ichneumon flitted to and fro, bobbing its abdomen up and down and twitching its antennae as though filled with the highest pitch of nervous excitement. After the wasp had progressed a few feet up the tree, the ichneumon made a dart at the spider, clutched it with its legs, bent its abdomen beneath and allowed the wasp to drag both it and spider, meanwhile, no doubt, depositing several eggs within the body of the latter. About ten feet up the tree the ichneumon suddenly left without attacking or seemingly being noticed by the wasp. The latter went on rapidly moving backwards until it reached a horizontal limb and was lost to view.

Several questions came to mind after the scene was over, viz: (a) Did the wasp have its nest on the limb of the tree or did it go there to have a good height from which to start to fly with its bulky burden? I once noted a larger wasp climb to the top of an iron-weed in order to get a good start with a harvest fly which it could

scarcely lift above the ground. (b) Did the ichneumon fly deposit its eggs in the spider, knowing that the latter would be used for food for the young of the wasp and that its young could then readily attack those of the wasp, or is the spider the true host of this species of ichneumid? (c) If the latter, does the ichneumid usually wait until the spider has become the prey of a wasp before attempting to place its eggs? At all events the tragedy with its three actors was to me a most interesting one and well illustrates what I have before written that for the naturalist, when he meets a new or comparatively unknown acquaintance among the lowly objects of nature, questions arise regarding its life-history and relationship to other forms which are to him more interesting, instructive and profitable to study than any of those relating only to the words and deeds of man.

Reaching the camp at nine o'clock, I began to pare apples out in the open beneath the shadow of my oak tree, out where the breezes could fan my brow; pare apples for apple-sauce, one of the best of all sauces to tickle the palate when on an outing. The odor of the Astrachan apples filled the air for rods around and soon proved attractive to yellow-jackets, as did also the lemonade which I made for dinner. Three were in the basin soon after it was emptied, sip-

ping eagerly at the acidulated sugar left on its bottom.

The oak sap area is still attracting butterflies and other insects. One of the largest and most handsome red-spotted purples[82] I have seen this season is trying to get at it, but the bald hornets keep her on the move. A half dozen of the hornets are present and when the butterfly alights anywhere near the sap one or more of them attempts to fly on her back and sting her. A large comma[83] butterfly and a red admiral[84] are also there. All three of these butterflies, when they settle down on or near the sap, open and shut or flap their wings rapidly, as if trying to fend off or frighten away the hornets. The latter, however, are the self-appointed rulers of the place and all other forms have to steal or fight for what they get.

On the last evening that I was in the city a great event happened unto me, an honor that comes to a man seldom more than once in a lifetime and to most men not at all. I was sitting on my front porch with my feet, slipper-clad, stretched out across the railing when all at once a robin, coming from I know not where, alighted on one of them. Only an instant stayed he, for glancing around he saw the other part of his roosting place. Too close it was for even a city

[82] *Limenitis ursula* Fab. [83] *Grapta comma* Harr.
[84] *Pyrameis atalanta* Linn.

robin's comfort, so with a chuckle of surprise and a rush of wings away he went. But my foot had been hallowed by his touch, and even yet I can recall the thrill of soul I felt as on my toe he gently settled.

It was, I think, the same robin that sings unto himself the little ditty of joy when he has succeeded in capturing a big billful of fishing worms. Three times have I heard this song and noted the vibrations of the throat below the bill which he dare not open. It is uttered just before he takes wing for the nest across the street. There a quartet of hungry youngsters are awaiting him and perhaps it is to them he calls: "Cheer up little ones, I am coming. Stretch high your heads and open wide your gaping jaws that no time may be lost in thrusting into your gullets the fine juicy mouthful I have found for you."

Two other bits of "nature study" worth recording did I see in the city in the fortnight past. One a young flicker, so busy gathering ants from a crack between the slabs of concrete sidewalk that he did not fly when I approached, but only hopped to one side a foot or two to let me by, then back again to work.

Second, the doings of a fox squirrel which often visits my back yard in search of breakfast. On a recent morn he came to the base of a maple about which I had cut the grass the

evening before. There he sniffed and smelled around, then rolled over and over several times, rubbing his shoulders deep among the fallen grass stems, just as one sees at times a dog roll and wallow in some substance which strikes the fancy of his, not our, sense of smell. After so wallowing about the squirrel ran up a poplar tree but came down when I offered him food in the way of bread crumbs and sugar, all I had on hand which I though might tickle the palate of a city squirrel. Both these he scorned, but going farther back ate greedily of some salt which had been thrown on a brick sidewalk to kill the crab-grass. Then into a cherry tree he went and began feeding on the bulbs of some Florida orchids there suspended. This not being to my liking, I turned a convenient hose on him. Away he scampered and up a neighbor's cherry tree, where he found food to his liking; rich, ripe, juicy cherries, far out on the ends of the limbs where only the robins, woodpeckers and squirrels like he could get them. On these he feasted, and so feasting I left him in content.

To-night the evening star is bright and beautiful, an eye of protection watching o'er my camp. As the dusk which followed twilight settled down, the call of the true katydid was, for the first time this season, heard. It was the pioneer of that chorus of sound which in a fortnight will be sent forth at eventide far up and down

this valley. Presager of frost, harbinger of the melancholy days of autumn—this call of katy-did—of days when my soul is o'ercast with gloom, when optimism has been banished and pessimism reigns supreme. I love their call, and yet I hate it; love it for its persistency, for its sonorousness, for its love-making powers; hate it for its premonition of the hoar frost and the death that is to be, the death which comes to many things in autumn.

Friday, July 14.—Though the sky this morn was liquid blue, the air at 4:30 was so cool that I had to wear an overcoat. Soon enough did this change and the sun send down his beams too fierce for comfort. By 6:30 I had cooked and eaten breakfast, cleaned up the camp, caught crawfish and baited three set-poles for bass.

To-day a boy have I been again, a boy with a work to do, a boy berry picker. For five long hours I bent over the bushes and nine gallons, or more than a bushel, fell before my fingers. A hundred gallons might I have gathered and still left berries in the field. It is more berries than I have seen or picked in thirty years, yes, thirty-five, for I stopped picking at seventeen and went to other things, not higher ones, for picking wild berries is a noble calling.

They are the fruit of the earth, an offering

of nature in her generous moods, her dessert of wild fruit, freely given, than which there is no better. No hoe or plow of man hath tended them. Up spontaneously, indigenously, the brambles spring; up armed with many a horny prickle to hold you fast that you may not go by without seeing what they have to offer—big fat juicy berries, full of sweet pulp, full of sustenance for bees and wasps, for birds of many kinds, for squirrels and marmots, for that higher mammal, man. Out of the clay and other materials of these poor hillside soils the blackberry canes do fashion, through the chemistry of their cells, this juicy pulp, sweeten it to suit your taste, then offer it free for the taking. Is it not a miracle of nature, a miracle greater than any accredited to man, this juggling of earthy ingredients, this producing of luscious berries by these thorny brambles? Would that a thousand of the city children, many of whom have never seen berries growing, could have been turned into this forty-acre field. What a shouting and laughter, what a jangling of tin cups and buckets, what a smacking of lips, this day there would have been!

Many of the berries were so ripe that they fell to the ground when the canes were touched. From these riper ones yellow-jackets, bees and wasps were sucking the juices. One handful I suddenly dropped before it reached the bucket.

Something had I picked besides the berries. That something I did not see, but it had a fiery splinter in its tail, a splinter which pierced my finger and caused an involuntary "damn" and the dropping of the berries. How the owner of that splinter must have chuckled when he put it to its proper use. Perhaps it was for the first time and he had long been aching to make something else ache.

Come to me, says the berry bramble, come and let me clutch your clothes, draw you close. Gather your fill of my juicy offerings. Scatter far and wide the tiny seeds which they contain. Then up another bramble will somewhere spring and my mission on earth will have been successfully fulfilled.

Back to the elemental, back to the dust of nature, back to the simple life, back to the sod and the blanket mold of this old earth, that is the cry of everything that lives, or if not the cry, the destiny of all. The reddish humus of the nearly decayed oaken log before me has heard the cry and has acted thereon. The iron, sufficient in quantity amidst the carbon and other elements of the wood to give its hue thereto, is eager to become again the oxide of the mold. The leaves in eight weeks time will be mostly there. The katydids will follow the leaves; the birds in a few years or perhaps sooner, the katydids. The mother gives. The mother is ever

covetuous and demandeth back her own. The father yieldeth his energy. The father is ever greedy and attracts back into space, away from the living thing that it may be closer to if not a part of him, that energy which he hath given to beget life in the matter of the mother. Matter and energy, ever uniting, ever separating, changeless and indestructible, ever forming new combinations, full of affinity one for the other, yet soon satiated, soon divorced. Is it any wonder that this spirit of change, of restlessness, that pervades all matter and leads to all life, all death, is exemplified in the brain of man by that spirit of discontent which so often enthralls his soul?

The "bugs" are still after me; perhaps in revenge for the many spirits of their ancestors which in years agone I have sent across the borders of the great unknown in order that their bodies might rest in my cabinets, a part of my collection. On yesterday I felt something go "flip-flap" just above my ankle, and reaching beneath my trouser-leg I brought forth a rather rare brownish click-beetle. A half hour later something began to prod my shoulder. Beneath my shirt I groped and brought to light a handsome example of the big grape-vine beetle,[85] nearly an inch in length. Ants galore have I plucked from my face and hands while here in

[85] *Pelidnota punctata* Linn.

camp. Wood ticks and chiggers have caused me to scratch by day and itch by night. Just now an involuntary shudder ran down my spine and I grabbed a large brown loop-worm, a larva of some moth, which was measuring my neck. Even as I write, small snout beetles fall from the oaken branches above and crawl through the undried ink on the pages of my journal, making new hieroglyphics in the annals of natural history.

The most interesting of all, however, has been a medium sized *Bombus*, or bumble-bee, which has several times on recent days alighted on my hunting shoes of so-called elk-hide, and unfolding his proboscis, begun diligently to rasp at the leather. On two of his visits he crawled along to the large brass eyelets and buttons and rubbed his food collector over them for minutes at a time. Whether he looked upon them as a new species of posey which perhaps possessed some unknown and delicious nectar, or whether he was attracted solely by the glitter and brassy odor, my mind knoweth not, and only his can answer.

The first odor of the sweet white everlasting[86] this day greeted my nostrils from the grassy slope of the pasture which I crossed when returning from my berry picking. As I travel along the country roads or wander through the

[86] *Gnaphalium obtusifolium* L.

woodlands from mid-July to October, I inhale many an odor, but none more pleasing than that which comes to me from this Compositæ. There is nothing like it in my category of smells. Once known it is never forgotten and each season I greet it with ever growing delight. If there is any other odor which it recalls, it is that of the earth, earthy on the first days of the great awakening. Then the moistened leaves and mold give up from many a woodland surface the quintessence of herbs and grass and flowers long since dead and forgotten. But the odor of the everlasting is that of a living thing which I can gather and put into my pocket where for months it will exhale its fragrance.

A plant twelve to eighteen inches in height, it flourishes best in poor soil on the sunny slopes of old fields and pastures. There through the months of summer is its odor distilled, reaching perfection only in autumn after the hoar frost has lent its leaven for a perfect ripeness. Not especially showy or attractive is the plant, but loose branching, growing in small clumps, with alternate linear sessile leaves and a corymb of cone-shaped whitish heads. The stems and under side of leaves are clothed with a dense hoary-white appressed pubescence and this, together with the odor, should make it easily known. Where the plant is plentiful this odor penetrates the air for rods around, and is often borne

to the traveler, by whom it is welcomed though its source be to him unknown. What a combination of chemical atoms, what perfect union of C. and H. and O. and other elements, must there be for its production! What a hidden secret must this herb possess that it is enabled to produce and exhale such a unique, pleasing and life inspiring fragrance!

Bats somewhere near here have their home, dangling during the day from beneath a leafy covert or hanging pendent in the hollow bole of some old tree. Each evening, as the long twilight is fading, back and forth before my tent they flit in ever widening circles. Swift, noiseless, with wide open mouth and keen searching eye, ever they move. A hybrid as it were, part beast, part bird, they are uncanny objects—ghosts of a far distant past—which show themselves as evening wood-sprites, then mope like owls the live-long day.

Saturday, July 15.—Not only berries did I gather on yesterday, but "no-see-ems," chiggers—a thousand and one of them. Even now, though I have smeared my skin with coal-oil, carbolated vaseline and alcohol, they burrow; and to-morrow will they but burrow deeper and itch the more. They are the "sour" which in part offsets the berries' sweet. Ever the two do go in company.

The spiny-rayed fishes of Raccoon Creek, for which I mostly angle, are evidently wholly carnivorous in habit. Worms, grasshoppers, mussels, minnows and other things of meat alone, will tempt them. This morn I baited for them with blackberries, both unripe bright red ones and ripe black juicy ones, but nary a nibble did I get. Then trying a piece of half rotten mussel I caught a fine sunny in less than half a minute. The tastes of fishes are therefore different from those of man. Did blackberry canes hang over the water and the ripe berries drop therein, the sunnies might have been educated up to berry eating, but as it is, meat only seems to tempt them.

Most of the dwellers along this part of the creek valley are happy-go-lucky farmers. They think no more of breaking a fish law than I of uttering a cuss word when occasion demands. When fish hungry they take a trammel-net, dip-net, seine or spear and go out and get them. To angle as do I with worm or grasshopper is beneath their calling. What they want is meat, not sport, and they take the quickest way of getting it. While I seldom break a fish law, I do not blame them for so doing. The creek runs by the side of or through their farms. They see other people come with rod and tackle and carry away the best which the stream can offer. While fish would probably be much more scarce, it is

my opinion that they form a part of nature's gift to man and here, as elsewhere, such gifts should be his who takes the time to go out and get them. The Indian had no game laws. A true son of nature he, never a game hog, but a sportsman of the higher type, taking only what he needed.

An ash, gray-barked and festooned with wild grape, leaning far out over a deep pool in which bass, big goggle-eyes and catfish dwell; a shelving space of sand beneath the tree whereon to sit; a sheen of placid water over which skate wherrymen and whirling beetles; a floating bobbing cork; a July sunshine genial and full of yellow glory, reflecting from the bottom every leaf and tiny twig of the willows on the other shore—this my lolling place, my heaven, for three hours this morn.

Usually I bring my rifle with me and see no game. To-day I left it in the tent and a fox squirrel ambled up the opposite sandy shore close along the water's edge, stopped a bit, sat erect and stared at me; then going farther up, swam gracefully across to a leaning tree, leaped on one of its branches and in a minute or two came down the shore on my side to within ten feet of me. Then seemingly not the least affrightened, it clambered up the bank and was lost to view. As far as I remember this was the first time I ever saw a squirrel swim. They move

slowly and serenely through the water, the bushy tail floating straight out behind them.

On returning to camp I found another species of butterfly, my old friend, the Camberwell beauty, at the oaken sap. He too jerks his wings at the hornets but does not fly until two or three have gotten after him. The yellow jackets seem fond of the odor of fish and whenever I dress them they fly around the board, sipping at the blood and moisture.

The cackle of the flicker, when the bird is close, sounds somewhat like that of a guinea hen or of a rooster who has found a choice tidbit and calls his harem to come up and partake. One is seated on a horizontal limb of a poplar a half dozen rods away. It squats close to the limb as if for protection. Much of the time it is preening its feathers, but about once every two minutes it raises its head and sends forth its characteristic call. Twice it hops or creeps along the limb and picks up some morsel which its keen eye has detected, then resumes its preening and at intervals the cackle. The latter is a "cut—ct—ct—ct—ct—ct," uttered very rapidly and resembling the beginning of the cackling note of a hen but the intonation more like that of the guinea. Far different is it from the love-call "a-wick—a-wick—a-wick" which now comes from another tree.

Whether the latter note is always a love call

I seriously doubt. I once saw two of these birds chasing one another up and down the forks of an elm and uttering meanwhile the note last mentioned. Going closer I found that it was not a love making scene but a quarrel—that of two males over one of the opposite sex. They would rest within a few inches of one another and shake their heads in a peculiar jerking manner, uttering at the same time their dare—"a-wick—a-wick—a-wick," sometimes low, almost in a whisper, again loud and querulous. The female meanwhile apparently took no notice of them. She would fly thirty to fifty feet away, sometimes to the ground, and hop along in search of food. They would immediately follow, and alighting on opposite sides of a shrub or small branch of tree near her, would stick their heads around within two or three inches of one another and bob and bow up and down and from side to side in a queer laugh provoking manner. When they flew the one which first alighted always uttered very loudly the challenge "a-wick—a-wick—a-wick." Thus is there, especially in the mating season, contention among the birds, the weaker sex being there also unintentionally responsible for many of the turmoils of their daily life.

Yesterday my eyes were delighted and my soul made glad by seeing a humming bird poise before the small purplish blossoms of the fig-

wort[87] and suck their nectar as busily as though they were the large and brilliant tubes of the trumpet creeper or the honey-suckle. A score or more of them he probed in the minute or two he was before me. 'Twas along the border of a dense woods where few flowers there were to furnish nectar. Those of the figwort are very small and unattractive, yet their supply of sweets was seemingly sufficient to reward a visit by the brilliant little hummer. His ruby throat patch gleamed like a great jewel as he hovered and hummed close by my side. Then away to crofts and pastures new he went, like a dart of brilliant color shot from some wood-nymph's bow.

A pebble of mica-schist I pick up from the sward at my side, a small gray thing with flecks of yellow glistening from its surface. How came it here and when? A fragment of the earth's mold about me doth it comprise. And I—what am I? How, when and whence came I here? A fragment of the earth's mold to be am I—a particle of flotsam which the fates have caused to drift to this spot of sod whereon I sit—a drifting dreamer now of little more moment in the universe than the pebble of schist which I have ruthlessly cast aside.

The flood plain of Raccoon is on this side but about twenty feet in width, while on the other it

[87] *Scrophularia marylandica* L.

forms a broad cultivated bottom field. The surface of the steep slope which on this side leads up to the terrace where my "rag-house" stands is thickly studded with elm, soft maple, butternut, walnut, hackberry, sycamore and other trees, all of second growth. Over many of them wild grapes and Virginia creeper clamber and form dense leafy coverts. The earth beneath this shade is but thinly clothed with weeds and is productive of beetles and larvae of many insects. Soft and easily scratched, it is a favorite hunting place of those ground frequenting birds, the towhee, the wood thrush and the robin.

On the border of the bottom field on the opposite side of the creek are young soft maples and willows in profusion, with here and there a larger elm or hackberry protruding from their midst. The dodder[88] is now in the rich yellow of its prime, covering large clumps of the water-willow close into shore and gleaming in the sunlight like some great mass of gold dropped down along the lowest level where the placid waters flow.

Most interesting of our parasitic plants this dodder—a parasite by suicide. It springs from a seed which furnishes it nourisment until it finds some suitable host around which to coil. In coiling it contracts and so pulls itself up by

[88] *Cuscuta gronovii* Willd.

the roots. If not uprooted, a portion of the stem a few inches above the ground soon withers, dies and breaks apart while the upper twining portion with its numerous minute suckers continues to flourish on the juices of its host.

If from the beginning one could trace its history he would doubtless find that like most other plants, it once had leaves, but a weak stem, and desiring to reach the light, began to twine. Tasting juices by chance, it was nourished by them and so began a downfall which has continued until it presents the degraded spectacle of a plant without a root, without a twig, without a leaf and with a stem so useless as to be inadequate to bear its own weight. Other plants with smaller beginnings have gone on to higher forms, but the dodder from a breach of the laws of evolution has paid one of nature's heaviest fines—lost the organs which it once possessed and is a yellow creeping parasite almost its whole life long.

Sunday, July 16.—The morning cloudy and presaging rain. The wind soughs dolefully through the branches of my oaks, mine for nearly a fortnight past but soon to revert to the lawful owner. More pleasure perhaps have I gotten from their shade, more heat from their bark, more inspiration from their lofty forms than they will ever yield to him.

"In such green palaces the first kings reigned;
Slept in their shade, and angels entertained;
With such old counsellors they did advise
And by frequenting sacred shades grew wise."

Here in this glen alone with the oaks almost a Druid am I this Sabbath morn. Next to the sun among all of nature's objects I love my mother earth. Rather do I love her best and most revere the sun. The oak trees and their kin, the maples and the beeches, hold next place in my affections, for they are hereabouts the oldest, the tallest, the most sturdy of the living things of earth. On the hills about me there are doubtless oaks that dropped their acorns before Columbus knelt upon the sands of Salvador. There are beeches that gave shelter to deer and elk when Shakespeare was a boy. There are maples which yielded in spring the sweetness of their sap, in summer the shelter of their shade to the grandfathers and great-grandfathers of Tecumseh and his tribes. There they stand in sun and shower, the broad-armed witnesses of perished centuries and most worthy are they of the love and reverence of every man.

Yes, birds do I love and the graceful flight and brilliant hues of butterflies, but trees best of all. For full three hundred years have these three oaks stood here. How wide the sward of blue-grass which their long spreading limbs do shelter. Why should they not be the homes of

tree-elves, wood nymphs and the spirits of other sprites of long ago. Great oaks like these were most worthy to be the Gods of the Druids. As much right to worship them had they as I the sun. I revere or worship only that which I *know* exists—that which is the highest, most powerful of all things known to me. Back of or above the sun there may be somewhere—but where we know not, nor shall ever know—a power higher than the sun, master of him and of all other suns—the Overlord of all. Until I know, which I shall never do, that there is such an Overlord, until then I worship, if you may call it worship, that highest power, that ruler which my senses ken.

Of a million men, one looks up into the sky and wonders why it is there—looks out into space and ponders o'er the porch-lights of other sun-ruled systems—treads the earth and thinks of her as a moving sphere; the others look down upon her streets and pathways—seeking gold. The earth itself they know not and of her varied beauties their senses little knowledge gain. Here beneath the oak trees this day am I because I choose to be here. No mortal man or woman hath said unto me—here shalt thou this morning worship. Only the mother with her birds and flowers and trees did beckon and her did I obey. The wood thrush singing for me this instant his morning anthem is more joy-giving

unto my soul than the chants of choirs invisible to the souls of many men. The blue-grass at my feet is carpet more pleasing to my tread in this my temple of the woods than the plush of velvet is to others in temples wrought by man. The arching canopy of oak tree and the greater arch of blue which stretches out into infinitude above is more awe inspiring, more begetful of reverence in my being, than would be the gothic arches of any cathedral conceived by brain of human. Then let the oak tree my Sabbath temple be; let the sun be the God unto whom this morn my reverence is due and this spot of mother earth the altar at which I kneel to do homage unto him.

My devotions over, matters more practical begin to assert themselves. My larder of fresh meat is almost empty, so to the deep hole above the camp I a-fishing go. The instant my hook, baited with a fine old grasshopper, hit the water my cork went under but I missed the biter. Two minutes later a goggle-eye of a pound's weight was in my clutches, the bronze blotches on his sides showing prettily in the morning sunshine. For full two hours I tried to catch his mate, but failed. If goggle-eyes inhabit a pool and intend to bite they do so at once. Meanwhile M. came up and fished with me without results. Just as we were starting to dinner, E. G. made his appearance, bound again for his favorite botanical

haunt, the muck swamp farther up. There, after a good Sunday dinner with M., we went and found E. listing plants. A rain soon threatened and we sought the shelter of the tent, where we were kept till after four.

While there M. and E. discussed the habits of raccoons in seeking food. Both had in times past made pets of these animals and had taken them along the streams to hunt crawfish, which are the especial dainties of a raccoon's bill of fare. They do not look for the crawfish, but feel for them, and while so doing keep the head turned to one side, looking backwards. In every crack and cranny along the shallow water, beneath the edges of stones, dead leaves and chunks they search. When they touch a crawfish they instantly make a dive and if successful grasp it with the fore-paw or hand, then, before swallowing it, roll it between both paws until the large claws are loosened and the hard crust well broken. Meanwhile they keep up a peculiar little purring grunt of exultation or of satisfaction. If a tartar in the shape of an old crawfish with big claws is captured and pinches the coon, he gives it a jerk far away and pays no farther attention to it, eating only the smaller, more tender young ones.

E. said that on one occasion he took his pet to a bumble-bees' nest. There as the bees emerged the raccoon caught them one by one, rolled them

in his paws till they were dead, then threw them to one side. When all were finished he with great gusto devoured the honey. Tadpoles placed in a pan of water he went after with such vim as to splash all the water from the vessel.

M., who has hunted coons for many years, says that oftentimes they cling so fast that one cannot shake them from the tree. By getting them on a slender limb which can be swung to and fro, each swing gaining in velocity, and then suddenly letting go or stopping the swing, the coon will be torn loose from his hold and sent far out into space where the dogs below are waiting for him.

When I went to dinner I placed my big goggle-eye in the boat. On returning to camp I noted that he was half stunned and had a raw spot or two on his back. A green heron had tried to "bill" him said M., but found him too large and active to carry away. Thus ever doth the struggle continue. From turtles, snakes, minks and even shitepokes doth the fisherman have to guard the catch after they are his.

The rain over, the sun shines forth in regal splendor. Across and through the sea of blue into which I gaze a bird flaps and soars, then flaps and soars again. Far up it is, yet I catch a glimpse of a white spot on the duller gray of its sooty wing and know it for the "night-

hawk,[89] first cousin to the whippoorwill. Another and another I count until five are there, their long pointed wings cleaving the air with a gracefulness of motion unexcelled by other winged creature. Up and down, in and out, in long gradient curves they swiftly move, the white spots gleaming prettily in the sunlight. Two hundred feet and more in air they circle, catching, as their darting movements show, many a form of insect life for their evening meal. It is doubtless a family hunting in unison, hawking together and perhaps uttering at intervals, one unto another, some word of cheer or comment on the chase.

Many beetles, usually regarded as rare, are found to be common enough once their food, be it plant or animal, is well known. Near the camp this eve I ran across a "stink-horn" fungus,[90] one of the first I had seen for years. It has a cylindrical horn-like stem, seven or eight inches in length, of a spongy or very porous texture and bearing a handsome veil-like cap at the summit. Its most striking character, however, is an overpowering fœtid odor which smells to heaven. It is worse than that exhaled by the most rotten of carrion, yet very attractive to some insects whose ideas of fragrance seem to run to stinks. Happening to remember that a

[89] *Chordeiles virginianus* Gmel. [90] *Dictyophora duplicata* Bosc.

certain Nitidulid[91] beetle, which I had never taken, is said to live in this fungus, I held my nose and with a stick broke it apart. Sure enough, within its base were nearly a dozen of the beetles. With them were also a big spotted Staphylinid[92] and two examples of a large and striking Silphid,[93] all living in harmony and feeding upon the juices of the stink-horn. If the Nitidulids live, as they are said to do, on this fungus only, their habits of life must be most erratic, for the stink-horn springs into existence in a single night and is often absent from any one locality for months or even years.

While getting my pail of water for supper I saw a red-start warbler,[94] dressed in black and orange-red, flitting to and fro among the branches of a water-beech. From one twig to another it went lower, until it was in the foliage just above the rivulet that emerges from the spring. For a few seconds it disappeared then up again it came, wet and bedraggled from an evening bath. Seeking a well concealed place under the leaves it sat and preened its feathers for a time, often shaking itself to rid them of the last vestige of moisture. Then away it went to the boughs of the maple above my head, away in search of gnats and spiderkins.

Happy bird! Happy feathered midget! In

[91] *Psilopyga histrini* Lec
[92] *Listotrophus cingulatus* Grav.
[93] *Silpha americana* L.
[94] *Setophaga ruticilla* L.

six weeks or less will it start southward, bound for a home where no frost will chill its muscles, where insect life is ever present. Bathing as it goes in the clearest of crystal springs, dreaming dreams of mating and of nesting days, uttering low chuckling notes of pleasure when an attractive morsel of food is caught, saving not for a future but taking each day only sufficient for its needs, shuddering not at any thought of a hereafter, which never was or never will be, beset by no creeds, bound by no laws, free as the air through which it wings its way, on it will go to the great south world where the sun ever shines, where exists its heaven and its winter haven here on earth.

Monday, July 17.—The end has come; the end of another happy outing. Soon shall I "fold my tent like the Arab and as silently steal away." A fine camp site have I had, good fishing, excellent shade, poor hunting, plenty of marmot shooting, blackberries galore. To-day the peace, the calm, the quietude of nature doth surround me. To-morrow the roar, the rumble, the jar, the clanging bells, the shrieking whistles of art will take their place. Here time wags on unmeasured, and only by my journal do I know the day of week and month. There even the seconds are counted as they span off the hours of toiling thousands.

For nearly a fortnight have I been lolling my life away, yet I have lived as did my old fathers, the cave-dwellers, lived as did the noble red man, lived and let nature for the most part feed me. This lolling may add months or even years unto my term of life, for the earth smiles longest upon those who try to get closest to her crust, there to scent its perfumes, to know that they represent the quintessence of myriads of plants long dead, yet yielding up an inkling of their past. Each sprig of moss, each culm of grass, each stem of herb or bole of shrub or tree has had a history of its days or months or years to whisper unto me. For like myself life have they had, the tingling of the sap through vein and cell and the joy of labor. Unto each hath come the pleasure of healthy growth and of work well done. Thus are they and I related. Back through the ages to the days of stone dust and of planet atom can be traced our kinship.

When I went to my two set-lines this morn I found on one of them a good sized soft-shelled turtle. Hurrah! I shouted—turtle stew for dinner—stew after many fries—for squirrel and other stew meat has been wholly absent from this camp. Anchoring him near the old boat, M. and I went down stream for a last fishing jaunt together, but not much the morning yielded except the pleasure of the outing.

Back at noon, we dressed the turtle, then M.

went to the house for bread, and incidentally pie, while I made the stew, the ingredients thereof being: the meat of one soft-shelled turtle, trimmed of every particle of fat, a few small bits of bacon, two potatoes sliced thin, a half tablespoonful of butter, two eggs beaten to a frazzle and a half dozen uneeda crackers crumbled fine. Salted to taste and boiled for an hour, it was a stew fit for both Gods and men. Eaten in the open with lemonade for drink and blackberry pie for dessert it made a meal which M. declared he would long remember.

Stretched out for the last time beneath my oak tree I looked around upon a square yard of mother earth and noted fragments of twigs, bark, dead leaves, decaying fungi, old acorns and beechnuts, the old catkins of oak and hornbeam, spears of dry and brown grass and moss, the samara of maples, a dead beetle and moth, a double score of other objects—the flotsam and jetsam of decay and death—all going to make a portion of that earth mold or blanket, which next year or the next, will yield again the living green of grass, the growing shrub or tree, full of life, full of energy. Thus ever doth one generation yield its elements, its dust, that another may spring into life, grow, wax fat and decay. Thus ever is the earth's mold, mother of countless forms, renewed, made potent, strong

and able to give life and material for growth unto new objects.

This is the resurrection of nature, the life everlasting—this turning over and over of old matter into new, which becomes old and is again made new by the procession of the seasons—the hand of eternity. For to-morrow and to-morrow and to-morrow, ever recurring, ever coming and going, make up eternity. I live that another of my kind may be begotten and live. I die that another of my kind, or of some other kind that will make food and store energy for some future being of my kind, may be begotten and live. These processes, these rotations of nature, are as continuous, as old as time. From the beginning have they each year, each century, gone on and on and on in never ceasing progression. Back then to the two great primal laws of "matter indestructible" and "energy transmutable" must the life everlasting be referred.

And how wide spread the mold blanket of this old sphere on which we, lowly parasites, have our being for a little time, then nod and dream and die. Wherever life has been, or the remnants of life have been borne, there life today can be. Only where exists bare rock too steep or hard for lichen or moss to gain a foothold—sands whose crystal grains reflect the sunlight with unwonted vigor, or ice seemingly too

thick for that sun to melt—only in such places is that earth mold absent. Over all others it spreads, a blanket made up of the ashes of death, yet full of the potency of life-giving elements, ready to yield protoplasm and store energy, wherever and whenever the germ of life is quickened into action by the proper medley of moisture and of warmth.

The sun—father and ruler of all—up there, far distant in that space immeasurable by man, controls all life upon this crust of the mother earth. Here and there over her surface, when he deigns to shine with the proper modicum of light and heat, he begets the transmission of moisture, then tickles the earth's mold blanket into yielding up its stored elements that life may be where death did reign. Nothing of matter new gives he, only the power to be, only the power to cause the sap or blood to tingle and surge, to mount higher and higher, to form new cells where the flame of life may burn until the call of death doth come. The matter is here, in the blanket mold of mother earth; the energy there, in the fountain head of father sun. The two do meet and mingle, then beget, from seed eternal, a living thing.

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